NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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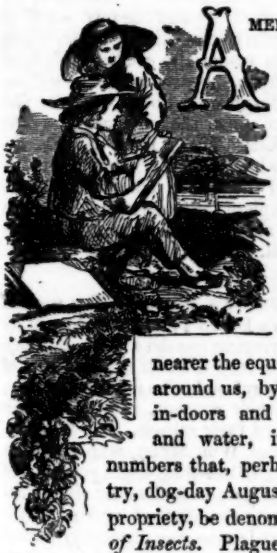
CALENDAR FOR AUGUST.

AUGUST! Reign, thou Fire-Month! What canst thou do?—Neither shalt *thou* destroy the earth, whom frost and ice could not destroy. The vines droop, the trees stagger, the broad-palmed leaves give thee their moisture, and hang down. But every night the dew pities them. Yet, there are that look thee in the eye, fierce Sun, all day long, and wink not. This is the rejoicing month for joyful insects. If our unselfish-eye would behold it, it is the most populous and the happiest month. The herds plash in the sedge; fish seek the deeper pools; forest-fowl lead out their young; the air is resonant of insect orchestras, each one carrying his part in Nature's grand harmony. August, thou art the ripeness of the year! Thou art the glowing centre of the circle!—*H. W. Beecher.*



AMERICA was long ago characterised by some European naturalist, as the "land of insects." Warmed into existence by the excessive heat of the season, a heat that gives us a pretty fair experience of the climate of countries much nearer the equator, insects swarm around us, by day and by night, in-doors and out, in earth, air and water, in such countless numbers that, perhaps, AUGUST, sultry, dog-day August, may, with some propriety, be denominated *The Month of Insects.* Plagues of Egypt! How they do bother. It was by a miracle, we are told, that "a grievous swarm of flies" once entered the royal dwelling of the hard-hearted Pharoah, but in this our "land of insects," it would be regarded a miracle, indeed, were our houses exempted from such annoyance for a single week, in the month of August. But flies are, by no means, the most troublesome of this class of our household pests. In many sections of our country, no pantry can be made tight enough to exclude those extremely "little ants" which infest some premises, in such multitudes as to seem a veritable repetition of that other "wonder in Egypt," by which "all the dust of the land became lice." Troublesome, however, as all these may be to the tidy housewife, they are quite insignificant when compared with the myriads which people our fields, and in so many ways prove themselves to be "injurious to vegetation."

From what we have read and heard about the insects of Europe, we have always understood that farmers there, much as they complain of their losses by the depredations of various kinds of insects on their crops, suffer much less from this cause than we do here. This fact is very strongly stated by Dr. FITCH, Entomologist of the New York State Agricultural Society. In a recent address he remarked that "the losses which we sustain from these pests immeasurably surpass anything of the kind to which they are subject in Europe. There, if an insect appears in their wheat fields by which the crop is shortened an eighth or a tenth from its average yield, whole communities become alarmed, while here so slight a loss would be disregarded and would pass wholly unnoticed." It may, therefore, be assumed as probably true, that there is something in our dry atmosphere, hot summers, loose soils, or some other peculiarity of our country, which is so favorable to the increase and activity of this most numerous branch of the animal kingdom, as to afford some ground of justification for the assertion that *America is the land of insects.* At any rate, we find multitudes of them cutting off the young shoots of our vegetables as they come up in the spring; other multitudes eat the leaves from garden plants and vines, destroy our cherries, currants, plums, apples and pears, utterly ruin whole fields of wheat and other grain, or saw away at the solid trunks and limbs of trees, designed for fencing, fuel, building purposes, and for our furniture, until

——"perforated sore,
And drilled in holes, the solid wood is found,
By worms voracious, eaten through and through."

It is, also, we believe, generally supposed that the losses which the farmers of our country sustain from insect depredations are constantly increasing. This is certainly true of some insects. The curculio, for instance, which a few years ago confined its operations to plums, has now become so numerous as to be able to find almost every apple on every tree of many large orchards, and to mark them unmistakably "for their heirs and successors."

Some farmers, when they consider how numerous, how minute, and yet how powerful are the foes which assail them, and then remember how little they can do to protect their crops when attacked by insects, are ready to give up all hope, and sit down in despair. This is cowardly. "Dominion over everything that creepeth upon the earth" was given to man in the beginning, and we have no doubt will be retained unto the end. It is possible that we shall be obliged to understand their habits and the history of their lives better than we now do. The study of Natural History may become a necessity to success in the contest with insects in America. And in this study, perhaps unexpectedly, we may find some compensation for our losses, in learning that even insects are but links in the great chain of universal goodness which unites the creatures of our common Father.

To show how well the humanizing effect of the study of nature was understood by one remarkable reformer, we give the story of an American entomologist—that Peter the Great, of Russia, conceived the idea that the study of Nature would contribute much towards the civilization and refinement of his barbarian subjects, and, accordingly, he established, at an enormous expense, a large Museum of Natural History at St. Petersburg; and in order to induce his whiskey-loving subjects to go there, he ordered a glass of brandy to be presented to every visitor!

May the direct appeal which insects make to our purses, prove at least as efficient, in promoting a more intimate acquaintance with their history and habits, as did the Czar's toddy.

Abortion or "Slinking" in Cows Produced by Smut on Corn.—The *Belgian Annals of Veterinary Medicine* states that the *Ustilago Madis*, or parasitic mushroom, which occurs on maize or Indian corn, as ergot does on rye, produces abortion in cows fed with it. In a stable where cows were given corn with smut on it, eleven abortions occurred in eight days; when the cause was suspected, and the food changed, there were no abortions. Stock-keepers should make a note of this statement.

FLAX COTTON.

We learn that the Rhode Island Agricultural Society has sent to Washington a memorial to be laid before Congress, asking for an appropriation to enable the society to prosecute its experiments in the manufacture of flax cotton. Those who have given most attention to the subject are confident that the difficulties in the way of manufacturing flax can be overcome, and that with such facilities as the appropriation they desire would furnish, some of our ingenious men would very soon accomplish the object which has been so long sought.

It may at first sight seem strange to some that this matter should be now engaging the attention of the society. But when justly viewed, it is seen to have the most intimate connection with our public affairs. For the want of cotton our mills must soon stop. Many of them have already stopped. How long they will remain idle, unless some new material to take the place of cotton is discovered, no one can say. And when the productiveness of our mills is at an end, the "internal tax" on cotton manufactures becomes nothing. If a substitute for cotton is found, our mills may continue their labors and pour in their quota to the national treasury. New England and the Middle States are of course peculiarly interested in seeing the invention perfected for which the society is laboring.

But there is of course a much wider view of the question, one which we have so often presented that we need not enlarge more upon it now, but which every day becomes more and more worthy of consideration. The invention of machinery for spinning flax satisfactorily and cheaply would at once depose and overwhelm King Cotton, whose throne has been so essentially shaken this past year. The effect upon the proud and rebellious temper of the cotton-growing South, upon the fate of slavery, and so upon the prosperity of our country is manifest. These facts explain the persistence with which the intelligent and far-sighted members of the Rhode Island Society are endeavoring to complete the experiments requisite for success in the manufacture of flax cotton.—*Providence Journal.*

Clearing a Debtor's Prison.—The work of clearing the Queen's Bench Prison, London, of its inhabitants is now verging toward a close. Strange to say, it has been a very difficult task. Many of the prisoners sternly refused to be made bankrupts, though, by giving their consent, they could have immediately obtained their release. The most curious case was that of Wm. Miller, who had been in prison since July, 1814—forty-eight years! He had lost all desire to go out, and would sign nothing which would have the effect of making him a free man. When at last he was absolutely forced to acquiesce, he begged to be allowed to remain in the prison a few days longer; and when his time was up he still lingered fondly within the gates to bid the officials farewell, and to shake hands over and over again. Until he passed the outer gates of the Queen's Bench Prison, a few weeks since, Wm. Miller, who was born nearly eighty years ago, never saw a street gas-lamp, nor an omnibus, much less a steamship or a railway.—*Railway Exchange.*

For the New England Farmer.

ON THE KEEPING PROPERTIES OF EGGS.

MR. BROWN:—Having read occasionally some controversy in the *N. E. Farmer* concerning the keeping properties of productive eggs, or those containing a germ, compared with unproductive eggs, which are unimpregnated, I wish to communicate a few observations on the subject. Persons who have been accustomed to raising fowls, must have observed that, if there are several eggs left in the nest of a hen, after she has hatched her brood, in frequent instances, some of these remaining eggs, when broken, appear to be fresh and uninjured, while others are entirely rotten, or contain dead chickens. Now those eggs which have not been materially injured by the warmth of the hen's body during the period of incubation, are such as never contained a germ; and those which are rotten, are eggs that contained a germ that had perished. I have always, therefore, made it a practice to examine the eggs in the nest of a setting hen, after she has sat upon them five days, and take away all those in which the process of incubation has not commenced. This is easily determined by holding the eggs against a strong light, which makes apparent the little net work of blood vessels forming within all the productive eggs, and reveals the clear transparency of the unproductive ones. By this means I save all the eggs which are not going to produce chickens, before they have been injured by the warmth of the hen; if I left them a longer time, those eggs which contained a perished germ, would soon become corrupted, though the eggs that never contained a germ would bear this temperature with impunity for several weeks.

But as the public is always better satisfied if an individual who makes a doubtful assertion, should establish it by the testimony of some high authority, as well as by his own experience, I have made an abstract of some remarks on this subject, contained in a work "On Domestic Fowls, &c.," by M. De Reaumur, the inventor of the French thermometer. In this abstract I shall use the language of the author, as translated, but shall considerably abridge the sum of his remarks.

The multiplication of chickens does not appear, says M. De Reaumur, to be a more important object than the preservation of eggs, since it is probable that hens contribute more to the actual supply of man's food by the latter, than the former. It is very easy to surmise that if all the eggs consumed in one year were put into the scale of a balance and weighed, and all the chickens, fowls and capons eaten in the same year were weighed likewise, the weight of the eggs would be superior to that of the flesh of the poultry. He thinks, in any case, however, that the preservation of eggs is a subject of great importance.

There is a method, he continues, for having eggs preserved a great while without corruption, which ought to obtain public attention. It is very remarkable that there should be, among eggs laid by the same hens, some that remain sound and contract no ill taste whatever, though laid a great while before, and kept in a warm, dry air five or six times longer than what would be necessary to rot any other eggs, placed in the same circumstances. This is an observation which he had occasion to make a great many times, before he tried methods for causing chickens to be hatched in ovens. After eggs had been warmed for some days together in the hatching ovens, there were some that spread the most offensive smell in the place if they were broken, and were entirely rotten. There were others in the same place, which, when broken, not only had no ill smell, but which were very good to eat. They differed from new-laid eggs only in having some of their moisture evaporated, but the yolk was an entire ball, like that of fresh eggs.

In some of the eggs that were corrupt enough to spread the most offensive smell, he found a chicken very well formed; in some of the same eggs he found only the remains of one, and in others he could not perceive the least vestiges of any. In this last case the germ had probably perished at an early date, and had become dissolved; but the uncorrupt eggs never contained a germ. The germ, at least a productive germ, is wanting in the eggs of hens that live without a cock; and those of hens that are not deprived of cocks are not all fruitful. Now, since the eggs that have germs in them are liable to corruption, he was led to think that those which keep sound a longer time, are the unfruitful ones. The experiments necessary to remove all doubt on this point were too plain not to be attempted.

He accordingly kept four hens without a cock in a large cage, where they had every thing besides in plenty; they laid eggs there, the first of which were of course productive; but after these had all been laid, by experimenting upon those which were laid afterwards, he found that when placed in the hatching oven, no chicken was enfolded in them, and they did not contract any corruption. *Although they were in an air warm to the degree that causes chickens to be hatched, they remained sound there for above thirty days, and sometimes forty or fifty days together.*

Thirty or forty days in an air of the heat of a hen's body must be equivalent in its action upon the eggs, to a great many months of an air which has only the common temperature of our houses. He concluded, therefore, that eggs destitute of a germ might be kept a long time in an ordinary temperature without being spoiled. He then made further experiments of another character. He deposited some of these eggs laid by hens kept apart from cocks, in one of the coolest places in his house on the ground floor, after having written upon each of them the date when it was laid. On the third day of January, he tried those which had been deposited there on the first of May, the preceding year; and found them in good condition. A great cavity had been made within them by evaporation. They were not in the least corrupt, though the yolk was slightly adhering to the shell. He had these eggs dressed in different ways, and none of those who eat them, had the least suspicion that they were eight months old.

In order, then, to have eggs that would keep fresh from spring to the middle, or even the end of winter, we need only to deprive hens of all communication with cocks. People, without knowing this, must have owed to this circumstance the occasional advantage of finding a smaller number of spoiled eggs among those they bought. Hens are not furnished in every farm with as many and as good cocks as would be necessary to render all

their eggs fit to be sat on; and the eggs of such fowls, after being kept a long time, would contain a large proportion well preserved.

Reaumur quotes some experiments of other persons which were attended with similar results. I think, therefore, we have reason to believe that the eggs which are laid by hens kept entirely apart from the male bird, are not liable to corrupt, under ordinary circumstances, before the contents are almost entirely evaporated. Eggs, on the other hand, which contain a germ, will begin to corrupt immediately after the germ has perished; and the germ seldom retains its vitality more than seven or eight weeks, unless some extraordinary attention is paid to the eggs for their preservation. Indeed, I have no doubt that if a series of careful experiments were performed with the two different kinds of eggs, to ascertain their comparative keeping properties, it would prove that the unimpregnated eggs laid in the spring, would be found as good in January as other eggs laid at the same time, would be in September. But this is conjecture: the exact difference between their keeping properties can only be ascertained by further experiment. WILSON FLAGG.

UNITED STATES AGRICULTURAL DEPARTMENT.

This is the act establishing a National Agricultural Department at Washington. The Commissioner has not yet been appointed:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there is hereby established at the seat of Government of the United States a Department of Agriculture, the general designs and duties of which shall be to acquire and diffuse among the people of the United States useful information on subjects connected with Agriculture, in the most general and comprehensive sense of that word, and to procure, propagate and distribute among the people, new and valuable seeds and plants.

SEC. 2. *And be it further enacted,* That there shall be appointed by the President, by and with the advice and consent of the Senate, a "Commissioner of Agriculture," who shall be the chief executive officer of the Department of Agriculture, who shall hold his office by a tenure similar to that of other civil officers appointed by the President, and who shall receive for his compensation a salary of three thousand dollars per annum.

SEC. 3. *And be it further enacted,* That it shall be the duty of the Commissioner of Agriculture to acquire and preserve, in his department, all information concerning Agriculture, which he can obtain by means of books and correspondence, and by practical and scientific experiments (accurate records of which experiments shall be kept in his office,) by the collection of statistics, and by any other appropriate means within his power; to collect, as he may be able, new and valuable seeds and plants; to test, by cultivation, the value of such of them as may require such tests; to propagate such as may be worthy of propagation, and to distribute them among agriculturists. He shall annually make a general report in writing of his acts, to the President and to Congress, in which he may recommend the publications of papers forming parts of, or accompanying his report, which report also shall contain an account of all moneys received and expended by him. He shall also make special reports on particular subjects, whenever required to do so by the President, or either house of Congress, or when he shall think the subject in his charge requires it. He shall receive and have charge of all the property of the agricultural division of the Patent Office, in the Department of the Interior, including the fixtures and property of the propagating garden. He shall direct and superintend the expenditure of all money appropriated by Congress to the Department, and render accounts thereof, and also of all money heretofore appropriated for Agriculture, and remaining unexpended. And said Commissioner may send and receive, through the mails, free of charge, all communications and other matter pertaining to the business of his department, not exceeding in weight thirty-two ounces.

SEC. 4. *And be it further enacted,* That the Commissioner of Agriculture shall appoint a chief clerk, with a salary of two thousand dollars, who, in all cases, during the necessary absence of the Commissioner, or when the said principal office shall become vacant, shall perform the duties of Commissioner; and he shall appoint such other employees as Congress may from time to time provide, with salaries corresponding to the salaries of similar officers in other Departments of the Government; and he shall, as Congress may from time to time provide, employ other persons, for such time as their services may be needed, including chemists, botanists, entomologists, and other persons skilled in the natural sciences pertaining to Agriculture. And the said Commissioner, and every other person to be appointed in the said Department, shall before he enter upon the duties of his office or appointment, make oath or affirmation truly and faithfully to execute the trust comted to him. And the said Commissioner and the Chief Clerk shall, before entering upon their duties, severally give bonds to the Treasurer of the United States, the former in the sum of ten thousand dollars, and the latter in the sum of five thousand dollars, conditional to render a true and faithful account to him or his successor in office, quarter-yearly accounts of all moneys which shall be by them received by virtue of the said office, with sureties to be approved as sufficient by the Solicitor of the Treasury; which bonds shall be filed in the office of the First Comptroller of the Treasury, to be by him put in suit, upon any breach of the conditions thereof.

Approved May 15, 1862.

THE WORKMANSHIP OF IVORY.

None of our manufacturers have yet reached the consummate skill of the Chinese artists in the workmanship of ivory, chiefly remarkable in their concentric balls, chess pieces and models. Yet the adaptation to useful purposes of this valuable substance is fully understood by those who do not undertake to rival the exquisite minuteness of Eastern art. The manufacturers of surgical instruments are in the habit of rendering ivory flexible for use as tubes, probes, etc., by acting on the well-known fact that, when bones are subjected to the action of hydrochloric acid, the phosphate of lime, which forms one of their component parts,

is extracted, and thus bones retain their original form, and acquire great flexibility. After giving the pieces of ivory their acquired form and polish, they are steeped in acid, either pure or diluted, until they become supple and elastic, and of a slightly yellow color. In the course of drying, the ivory returns to its original hardness, but its flexibility can be easily restored by surrounding it with wet linen. It is now ascertained that the decay of articles in ivory can be effectually checked, even when its progress has advanced so far as to cause the specimens to crumble away under the hands. Some of the works in ivory forwarded by Mr. Layard from Nineveh, were found, on their arrival in England, in a state of rapid decomposition. Professor Owen was consulted on the subject, and he suggested a remedy which, on trial, proved to be in the highest degree successful. Concluding that the decay was owing to the loss of gelatine in the ivory, he recommended that the articles should be boiled in a solution of gelatine, and thus treated, they became firm and solid.

PAINT FOR MARKING LABELS.

1. In the business of the garden and orchard, marked stakes and labels are often needed for temporary purposes, as the designation of rows of fruit trees, new varieties of corn and potatoes, flowers, &c., or rows of seed sown in hot beds.

2. The staves of an old barrel sawed in two and sharpened at one end, answer for larger purposes, and short pieces of hemlock lath, planed smooth on one side, for smaller ones. Those who happen to have blocks of cedar cut off from long posts, or even the sound portion of cedar posts that have failed, will find them especially useful wood for either large or small marks and stakes.

3. For paint to mark such stakes and labels, I have found nothing so cheap and ready as shellac varnish, into which a little lampblack had been worked. Whether used in making letters or figures, it should be applied with a small brush. It is better applied to the naked wood than to a painted surface, to which, especially if the paint be fresh and glossy, it does not adhere well.

Such paint will continue legible until the stakes decay. Its superiority to oil paint is seen in two facts—it dries rapidly, and it does not spread on the wood when first applied, as does oil paint on many surfaces, and become illegible.

So, also, this same mixture is superior for the same reason for marking barrels, boxes and bales of goods.—*Country Gentleman.*

To Cure a Film on the Eye of a Horse.—Take of white vitriol and rock alum one part—pulverize finely, and add clear spring water. With a finely pointed camel's hair pencil or soft feather, insert a single drop of this solution into the diseased eye every night and morning, and in a week the film usually disappears, and the eye becomes bright, sound and healthy. In some cases, pulverized loaf sugar blown into the eye through a quill, will prove a remedy. Powdered glass should never by used in such cases, although recommended by some, as it is much more likely to produce injurious effects, than to cure them.

A DAY WITH THE SHAKERS.

Harvard, June 20, 1862.

Gentlemen:—There is always something profitable to be found here among this interesting and intelligent people. One soon catches the spirit of quiet which pervades everything, and voice, manner and passion are all chastened and calmed, while surrounded by a system that never yields, though it is never irksome or oppressive. On their little farm of *two thousand acres*, always managed so as to yield a profit, I do not fail to find something to learn in an agricultural point of view. A considerable portion of their land is occupied with growing wood, which covers the sweeping vales and beautifully swelling hills around me, almost as far as the eye can reach. In the clear sunlight of this delicious June afternoon, the rich foliage of the forests is trembling and glancing in the sun's rays, and giving tone to the fresh west wind playing in the branches. Cattle are grazing on the distant hill-side pastures, and the new corn plants are glistening on the wide-spread fields of brown soil, where groups of healthy men, clad in loose and comfortable garments, are tending the springing corn. All things seem to be in harmony. Voice answereth unto voice in sympathizing tones. While all nature is fresh with new life and beauty around me, the bursting bud or expanded flower, the young fruit and waving grass or promising grain, all seem in unison with the spirit and expression of the singular and sentient beings with whom I have been conversing. And now come other tones through the orchard, and up the hill into the vineyard, where bees hum, and young grape blossoms fill with fragrance the surrounding air! These voices cannot be the breath of the trees, or birds, or climbing vines. They come mellifluous, in irregular cadences, as the voices of joyous girls, though from this bower I cannot look out upon habitation or human face. And the voices of joyous girls they proved, coming from the school-room, where I joined them, and passed a most interesting hour.

In this school I found fifteen girls, between the ages of fourteen and five—children who came to the society with their parents, or who have been adopted. The room was very commodious, and the perfection of neatness, the furniture comfortable and the walls spread with such maps and diagrams as were necessary for reference. I listened to classes in reading, parsing, spelling, geography, and then to an exercise which was new to me, though somewhat familiar with schools. The teacher asked her pupils to express "what they should like?" when one of the older scholars, in glowing but appropriate language, told through what country she would "like to travel and what to see. The others, apparently taking the hint of their leader, all spoke of travel, and

what they should be happy to witness, even down to the five-year old child, who would like to see the ocean, but not to sail in ships in a storm! She thought she would not like the flowers of the ocean as well as those of the land, as they would be too slimy." Deacon GROVESNOR beckoned to her, and she went and nestled in his lap as confidently and lovingly as the babe clings to the bosom of its mother. There seemed to be but "one heart, one mind, one voice," and I felt as though it were "heaven on earth begun." The teacher seemed to me highly accomplished, not only as a teacher, but in all those graces which adorn woman the most. Her manner and conversation were elegant, without effort, and her sketches, singing, and her affectionate attention to the children in her care, all told of the deep sentiment and loving heart that shone out so conspicuously in her life. It was a model school.

There are four "families" here, as they are called, owning the real estate in common, while the business and pecuniary matters of each family are entirely distinct. There are subdivisions of these families, I believe, where smaller numbers occupy a tenement, but all go to a common table, the women being seated on one side and the men on the other.

They have cleared large tracts of rocky and springy lands, so that they now present smooth surfaces and fine crops. The first process in this reclamation has been drainage, and the next removing the rocks—the latter being used to fill wide and deep excavations made to receive them. They have not yet introduced tiles, and find, so far, that their ample ditches, with the stones resting upon a gravelly bottom, answered all purposes on the lands which they have reclaimed. I visited one drained field of about twenty acres, which was covered with fine crops of clover, roots, sage, &c. An account of the manner of reclaiming this field was written for the *Farmer* by Dea. GROVESNOR, and may be found in our last year's volume. They keep, in all, about one hundred head of cattle. I saw a portion of them, which were a credit to the skill and management of their owners.

A variety of employment is engaged in on the estate—each branch having its special and responsible superintendent. One has charge of the orchards and vineyards, another of the stock and care of the barn, while a third, perhaps, sees to the collection and drying of herbs, which a fourth presses and packs, with such assistance as may be required in his department. I suppose a similar arrangement exists in regard to the field crops and to the articles which they manufacture. I have long enjoyed an acquaintance with several of these persons, and have ever found them upright and intelligent, possessing an urbanity of manner rarely surpassed by those in the most polite circles of life.

Neatness, order and industry are everywhere visible among these people, and when I passed from the workshop or the field to the parlor, and in social converse there tried to learn something of their inner life, all seemed to be real and harmonious. I have never been able to discover the demon discord between their thoughts and their acts. They are cheerful, though serene, often unbending in a quiet facetiousness which shows a decided elasticity of mind. I have noticed this among the women as well as men—perhaps more frequently. I should be glad to speak of individuals, but dare not invade the sanctity of their retirement. One lady informed me that she had been there more than forty years, and never had found the first hour when she regretted her coming, or had a desire to leave! If "contentment with godliness is great gain," surely they must be a happy people, for every indication is an attestation *that they are happy.* I look upon this association as the soundest *Insurance Company* known to men. It insures not only against fire and flood, but against poverty, sickness and disease—against the loss of home and reputation, and most of the ills that flesh is heir to, and in doing this, it insures long life and a serene old age. In the language of the great Master, it says to all—"Come unto me, all ye that are weary and heavy laden, and I will give you rest." To the young, the middle aged and old—to the afflicted, disappointed, tempted, discouraged and persecuted, it says this:—"Come Home! The conditions are Heaven-given, and simple. Come and earn your bread by the sweat of your brow. Come with coffers full, if you will, but come empty-handed if you have them not, and the mortal body and immortal soul which you bring, shall receive our affectionate nurture and tender care." What need we more?

I am under obligations to Dea. AUGUSTUS H. GROVESNOR, and, indeed, to all, men and women, for the most polite attention to myself, wife, and our companions, Dr. Joseph Reynolds and wife, of Concord.

For the benefit of the inquiring reader who may not have the information before him, I copy one or two paragraphs from the *New American Cyclopædia*, in relation to these interesting people.

"These settlements are composed of from 2 to 8 'families,' or households. A large dwelling-house, divided through the centre by wide halls, and capable of accommodating from 30 to 150 inmates, is erected for each family, the male members occupying one end and the females the other. The societies all possess considerable tracts of land, averaging nearly 7 acres to each member. They believe idleness to be sinful, and hence every member who is able to work, is employed in some labor. They have usually very extensive gardens connected with their settlements, and the culture of flowers, medicinal herbs, fruits and vegetables has been a favorite business with them; garden

and flower-seeds, and the dried herbs and medicinal extracts, fluid and solid, in use by physicians, have been largely produced by them. Of late years they give more attention to agriculture and to manufactures than formerly. * * *

"Their mode of worship is peculiar, as in it they exercise both soul and body. The two sexes are frequently arranged in ranks opposite to and facing each other, the front ranks about 6 feet apart. There is usually an address by one of the elders upon some doctrinal subject, or some practical virtue, after which they sing a hymn; then they form in circles around a band of male and female singers, to the music of whom they 'go forth in the dances of them that make merry,' in which they manifest their religious zeal. * * *

"They believe themselves to be frequently under the immediate influence of spirit agency, both of angels and of the departed members of their own fraternity who have advanced further than those still in the body in the work of the resurrection or redemption from the generative nature and order. They have a ministry, composed of 2 brethren and 2 sisters, who have the oversight of from 1 to 3 or 4 societies; also each family in every society has 4 elders, 2 brethren and 2 sisters, who have charge of the family. The temporalities of each family are cared for by 2 deacons and 2 deaconnesses. * * *

"Their increase during the present century has been moderate, only 3 societies having been formed within the last 50 years, and the growth of those previously in existence having been slow; but it is a fact worthy of note, that they are the only people on this continent, if not in the world, who have maintained successfully for more than 70 years a system of living, one of the fundamental principles of which is a community of property."

As a general thing, their crops look well—their grass crops, especially, are better than I have seen elsewhere. Their great barn is a model, at the "Church Family." Water is introduced from a hill-side a mile distant, with a huge reservoir on another hill, and from thence into all their buildings. But I have filled my sheet, and must stop.

Very truly yours, SIMON BROWN.

MESSRS. NOURSE, EATON & TOLMAN.

For the New England Farmer.

FENCES---CROWS.

MR. EDITOR:—My object in the brief note sent you some time since, was to state what was supposed to be a fact that might be of some interest to the public, viz.: that fences built on essentially the same plan of Mr. Smith's patent, were erected in this vicinity several years previous to the date of the said patent.

Since that time, two communications have been published over his name in reference to this matter. Whether he acts the part of a gentleman in insinuating that all who may question his exclusive right to a particular principle in fence building are guilty of "stealing at funerals," and of engaging in piratical pursuits generally, I leave for you and your readers to judge.

Mr. Smith's offer of a right to build the said fence is declined, for two reasons:

1. I do not wish to avail myself of the benefit of his labors without suitable and proper compensation.

2. I am too well satisfied with fence erected before his patent was obtained, to be under the slightest "temptation" to substitute one that is not essentially better.

Your correspondents "L. R. E." recommends strychnine to protect corn-fields from crows. I think a better preventive is the coating of the seed with tar. It has been tried by many farmers in this place for several years with entire success. The corn should be wet with warm water and stirred with a stick which has been immersed in the tar, until it is completely coated, and then a small quantity of plaster or ashes should be applied, to prevent its sticking. FARMER.

South Amherst, June 16, 1862.

SIMPLE PREVENTIVE OF THE RAVAGES OF MICE.

Mr. Geo. Jaques, in *Hovey's Magazine*, thus alludes to the destruction of trees the past winter by the mice, and a simple means of preventing their ravages:—

"Immense damage has been done to the apple orchards of this country, during the past winter, by mice. This destruction of property is the more to be deplored, since the preventive is so simple and sure. For years the mice have not injured my own trees in the least. My method of defence against them, I regard as infallibly efficacious. Early in November I hoe or spade up around each tree *a cone of earth*, covering the collar of the tree five or ten inches deep, so that there can be *no cavity* under the snow-crust *close to the trunk*. Hence, it is impossible for mice to approach that particular point upon the tree where they perpetrate their mischief. *Never* in one single instance has this preventive disappointed me, and I have practiced it over ten years.

Truly yours, GEO. JAQUES.

Worcester, May 15, 1862.

REMARKS.—The *cone of earth* to be placed about the trunk of fruit trees will prevent mice from gnawing them under ordinary circumstances,—but when the surface of the ground is covered with ice as it was last winter, and deep snows or drifts surround the trees, the mice come out and run upon the top of the snow and gnaw the trees several feet from the ground. We have seen repeated instances where they had completely excoriated all the branches of a young tree, from their junction with the stem two feet outward. Is there not some safe wash, such as a decoction of aloes, or a wash of tar, that would not injure the tree, and be so unpalatable to the mice as to prevent their feeding upon it? A remedy might be found, perhaps, in scattering about wheat, or other grain that had been impregnated with strychnine. This might be done in autumn after the birds are gone, or during the winter. We are inclined to think that our grass crops are seriously injured—especially the herds grass—by large numbers of mice feeding upon their roots.

For the New England Farmer.

AGRICULTURE IN OUR COMMON SCHOOLS.

Mr. Editor:—Ought agriculture to be taught in our common schools? In their present state and condition, can it be successfully taught there, without doing more harm than good? I make no apology for presenting this subject to the consideration of your readers. In this communication, I propose to offer a few reasons why agriculture ought not to be introduced, as a study, into our common schools.

Perhaps it is unnecessary to remark at the outset, that our common schools were established for the purpose of teaching reading, writing, spelling and defining of words, grammar, or the use and power of language, arithmetic and geography. These branches have been, and still are taught equally to all without distinction. The children of the rich and the poor, of both sexes, enjoy equal advantages. The design of their education is not to fit them for any particular calling, whether it be that of a farmer, a merchant, a mechanic, or a manufacturer, but, by a thorough training and drilling in the above studies, to prepare them for any occupation or pursuit.

Now, I object to the introduction of agriculture, as a study, into our common schools, because I believe it would have a tendency to divert attention from those primary and fundamental studies which appropriately belong to them, and be a great injury to the schools. Its effect would be to embarrass the interests of agriculture, and to check the progress of the schools. Our common schools are already burdened with too many studies; and they are not in a condition to attend to any new ones. We have already so great a multiplicity of studies in school, that a large proportion of the scholars who receive all their education from this source, are but imperfectly acquainted with the first principles and rudiments of their own language, and make a sorry work in writing English composition, and in the spelling and defining of words. In some of the common branches, we sometimes meet with scholars who are as ignorant as the boy who could cipher, but could not read—who could do any sum in arithmetic, as soon as it was read and explained to him. I want scholars who know how to read, as well as cipher. I want fewer studies, but better scholars, in our common schools.

I object to the introduction of agriculture, as a study, into our common schools, because our teachers have enough else to do, and because they are not qualified to teach it. They have more branches to teach now than they can well attend to; and being unacquainted with the theory and practice of agriculture, they cannot teach the science correctly; nor can they bring forward those ready, but striking illustrations which assist the pupil by securing his attention, and interesting him in the study. To the great neglect of the other and more important studies, the teachers would be obliged to spend much time in the vain attempt to impart instruction on topics which they do not understand themselves, and which they can not impart to others. It is a wise maxim, no lantern can emit more light than it has in it. But, if the lantern be made of tin, with a few small holes in the sides, the light emitted will be very small.

I object to the introduction of agriculture, as a study, into our common schools, because our schools are of a mixed character, and made up of scholars of all grades and ages, and of both sexes. In fact, most of them are quite too young to understand, and to be benefited by the study. As no one can teach more than he knows, so no one can receive instruction which is not adapted to his age and capacities. To teach agriculture to children so as to make them understand it, is no easy matter, because it embraces subjects which are entirely above, and beyond their comprehension. To make them understand analytical chemistry, natural history, theoretical and practical agriculture, requires no small degree of knowledge and skill. To be successful, the teacher should exemplify his instruction. He should be able to hold the plow, to drive the team, to use the scythe, the rake, the ax, the shovel and the hoe. There are a thousand things to be learned, which can be learned only by actual observation and example on the farm. Scholars can readily do whatever they see their teacher do, though they may not be able to understand his lectures, or what is laid down in the text-book. The way to teach agriculture to the young, is by example, by showing the best methods of cultivation, and how to do correctly, and in the best manner possible, the various kinds of farm-work.

I repeat, that I object to the study of agriculture in our common schools; first, because it would injure the schools by diverting the attention of the scholars from their necessary studies, and greatly disqualify them for future usefulness; secondly, because our teachers are not qualified to teach it, and have no means of explaining it; and thirdly, because the scholars generally are not old enough to understand it, and have no time to devote to it, without neglecting their other studies.

Warwick, June, 1862. John Goldsbury.

BENEFITS OF THE ANGLE WORM.

Though the angle worm yields a considerable amount of food to the birds and fish that grace the dinner-table, it is much more beneficial to man as a fertilizer of the land. Subsisting on the earth through which it burrows, with an occasional meal from a decaying tuber or leaf, its peculations from the husbandman are of the smallest nature; whereas it lightens the earth's surface by its burrowings, and thereby aids the spreading of the roots of all cereals and bulbs; and the burrows also carry down water after heavy rains, that but for them, would often gather in surface pools, and thereby injure the crops; and they also admit the air to the soil to a depth which by natural means it could not reach. The earth ejected by them also tends to the improving of the soil; and instances are known whereby these droppings, or "worm-casts," caused, in a few years, a considerable increase to the depth as well as the quality of the soil. Mr. Darwin, the naturalist, gives an account of a case of this kind which he tested, and from experiments he clearly proved that, in an old pasture, a layer of cinders and lime had been covered within a few years, to the depth of an inch, by the castings of worms. "On carefully examining," he also wrote, "between the blades of grass in the fields above described, I found scarcely a space of two inches square without a little heap of cylindrical castings of worms." A week or two

ago we chanced to walk through a very old pasture, and we were much struck by the number of the worm-casts it showed. They were, we are certain, nearly if not as numerous as those mentioned by Mr. Darwin, and they darkened the field so much, though the grass was growing, that they caused some parts of it to look as if newly top-dressed.—*Scottish Farmer.*

WEST'S IMPROVED PUMP.

The cuts which accompany this article give a representation of the external appearance of two patterns of the pump patented by J. D. West & Co. It is a double-acting pump, throwing the same amount of water at each motion of the handle, up or down. The house pump, (Fig. 1,) is of cast iron, a very neat and pretty design, and can be used as any other house pump, or, with hose attached, water can be forced to any required distance, for watering the garden, washing windows, or any of the numerous purposes for which water is so often needed at a distance from the source of supply.

Fig. 1.

The well and cistern pump, (Fig. 2,) is of the same internal construction, but is made with a long piston rod and discharging pipe, so that when placed in a well, out of doors, the pump itself is entirely below the curb of the well, out of danger from frost. By attaching hose, or by a pipe under ground connecting with the pump, water can be conveyed as needed. We are about setting one of these pumps, not, however, where it will have a great opportunity of distinguishing itself, as the work we shall give it is light, and may report in regard to its action, at some future day. Meantime it is only necessary to say that the pump has received commendation from the highest sources, and that Solon Robinson, whom every farmer knows, says no farmer can afford to be without it, who has to draw his water from a well or cistern.

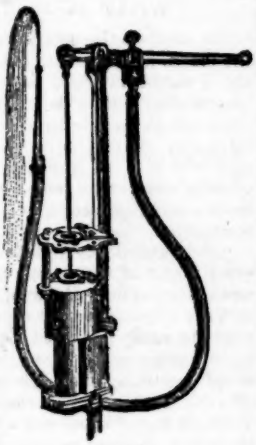


Fig. 2.

This pump was awarded a silver medal at the last Mechanics' Fair held in this city.

THE NEW YORK HORSE MARKET.

We have been lately a good deal in the Horse Market, trying to learn the fact, if it existed, that "the war has ruined," as we were repeatedly assured it had during the dull state of trade that really existed last autumn and winter. We have failed to discover the ruin. On the contrary, we find the stables in Twenty-fourth Street very fairly supplied with a well-assorted stock of horses; and though sales are not effected quite as lively as we have seen them, the horses do find buyers at liberal prices. Indeed, the prices must be higher, for they are decidedly so in the country. A class of horses that farmers would have willingly sold a year ago at $150 each, are now in demand at $175 or $200 each.

This covers the class of good, strong, well-made horses. On higher-priced horses the advance is still greater. It is less in proportion on such as are mostly used for stages and city railroads. The army contracts, at low prices, notwithstanding they absorb a great many horses, have a tendency to keep the price of ordinary horses down, because a person who wants a low-priced horse for his own use, regulates the value upon the army standard, so that when a seller asks a higher price, he is at once told that he is above the market.

But for the class of horses suitable for all work, and good looking enough to make a fair show on the road, the army rates fix no standard, and a well-matched pair of this sort sell pretty readily at $500 to $600, and higher, if speedy. Fast trotters and fancy-matched pairs, and elegant coach horses, sell at fancy prices, according to circumstances, up to ten or twelve hundred dollars a pair. And notwithstanding the assertion so frequently made, that the war, cutting off further custom, would destroy the market for this class, we believe that it is about as good now as when we had the whole of Dixie for customers.

It is true that the appearance of "Southern gentlemen" in the horse-market always raised a commotion, and gave the street a somewhat lively appearance, for the reason that one of them made more "fuss and feathers" about the purchase of a pair of horses than some of our quiet city buyers would, in purchasing all the horses on sale. But we assure our country readers that the absence of Southern buyers has not ruined the business, and horse-dealers are beginning to realize that their real substantial customers are our own citizens. We are certain that we may assure all who are interested in the production of horses, that the present state of the market, and all the signs of the times, warrant us in saying that there never has been a more favorable prospect for the production of good horses.

The destruction of horses by the army has been enormous, and must have the tendency by reducing the stock in the country, to enhance values. That enhancement has already commenced, and dealers do certainly find buyers in this market at the advanced price.

There are more horses selling in this city in June 1862, than there were in June 1861, of all kinds, except it is the cheapest kind of work horses. There are men in this city who have the ability and will combined, to buy good horses. Altogether, then, we must report the condition of the New York horse market in one word—favorable.—*New York Tribune.*

For the New England Farmer.

PREMIUMS ON FIELD CROPS.

Mr. Editor :—In your last number, (June 7th,) your Western New York correspondent "H.," under head of "Rivalry in Farming," very sensibly urges the importance of rivalry in this very important branch of business—but his idea of the cause of a lack of the proper stimulus, or inducement, seems to be "the manner in which premiums are offered for field crops." He says "most of the societies now offer a premium for the largest yield from an acre and half acre of ground, regardless of the expenses in producing it. Premiums should," he continues, "be offered on not less than five acres of ground, and for the greatest yield at the least cost, taking the condition of the land before and after the crop is taken off, into consideration."

I think there are many New England farmers who, (with due respect for opinions of your Western New York correspondent,) entertain different ideas from those expressed by him in some particulars. Situated as many farms are among the granite hills, how many of them would be deprived of the opportunity of competing for a premium if "five acres" of a certain specified crop were the least amount of ground that could be received or entered for a premium! Besides, if I rightly understand the subject, one object in offering or awarding premiums is to create a stimulus, and encourage the idea that it is far better economy to cultivate and till a less number of acres and do it rightly, than to try to cultivate or go over a greater amount of ground and manure it more sparingly; although for the first crop it may seem to be more expensive, yet in the long run such farming will prove to be the most successful. E. W.

E. Westmoreland, June, 1862.

For the New England Farmer.

MUSINGS BY THE HEARTHSTONE.

The shadows of evening have lengthened, and widened, and deepened, and blended into one thick veil of darkness. The moaning of the March wind comes, waking in my breast the echoes of dying memories. The flickering blaze, too, pictures on the wall what imagination sees as the reflected images of departed loved ones, mingled with flitting shadows, like those which cross the lighted pathway of the memory of the heart. What heart is there which has no fountain, from which some deep floodtide of fond recollections will sometimes spring forth, bearing on its bosom the lights and shadows of other years,—no hours of heavenly inspiration, when not only the past, with its fancies, but the present and future, with their realities, are spread out in startling distinctness before the mental vision?

Still, the bright hearthstone glows, and looking into the mass of burning embers, I seem to see contracted images of mighty structures and mountains of living fire, rising and falling in wild confusion, pushing each other up, and bearing each other down, all to settle away at last, in one dead mass, when the element which works the change shall have exhausted their combustible properties.

Thus do appetites and passions work in the human mind when we allow them its controlling power. Ever conflicting with and jostling each other, they create an unceasing tumult, working the ruin of our better nature. Love of ease wars with animal appetites and ambitious desires. We think we see a terrestrial heaven in rounds of luxurious dissipation; but the brilliant structure proves a misty mirage, leading us into the midst of a great desert of suffering and shame. Instead of shady palms, and fruits, and flowers, and silvery lakes, the wilderness of ruined character, of health and happiness, of body and mind destroyed is spread out before us in all its grim desolation. We have appetites and passions, and they have a proper place in the human mind; a proper sphere in which to be exercised, but should be kept subservient to our higher nature. Intellectual and moral powers, the head—with benevolence, affection and religion, the heart—should be the controlling elements of the mind. Because we have an animal nature, it is not, therefore, necessary that we should become all animal. Live a true life, and in the end its goal is not uncertain. Hopes now bright as the glitter of reflected rays of winter sunlight on the clear snow, may, indeed, prove equally unsubstantial. But looking toward the sunset of life, we see sketched on the horizon, like a mountain of transfiguration, the outlines of a good old age. Its clouds are few, and tinted with colors of rainbow brilliancy, the foreshadowing of a bright to-morrow, while its lofty summit seems to pierce the lower strata of the very heavens. A Monthly Reader.

Franklin, 1862.

WHAT IS IN THE MOON.

The comparative proximity of our own satellite, the moon, has necessarily rendered it an object of the greatest interest, and it has, perhaps, in a greater degree than the other celestial orbs, been subjected to the scrutinizing observations of the telescope. Since the completion of the great instrument of Lord Rosse, that nobleman has frequently observed it, and its appearance, as seen by the great telescope, is thus described by Dr. Scoresby:

"It appeared like a globe of molten silver, and every object of the extent of one hundred yards was quite visible. Edifices, therefore, of the size of York Minster, or the ruins of Whitby Abbey, might be easily perceived if they had existed. But there was no appearance of anything like water, or of an atmosphere. There was a vast number of extinct volcanoes, several miles in breadth. Through one of them was a line of continuance of about one hundred and fifty miles in length, which ran in a straight direction like a railway. The general appearance, however, was like one vast ruin of nature; and many of the pieces of rock, driven out of the volcanoes, appeared to be laid at various distances."

We have here a strong, nay, a complete confirmation of the most interesting recent discoveries of the continental philosophers, Maelder, of Dorpat, and Baer, of Berlin. The result of their curious and elaborate observations has been a map of what may now, without a figure, be called the geography of the moon, in which the surface of that satellite has been laid out with as much accuracy as that of our own globe. Of this map, a singular contrivance of human ingenuity, Dr. Nichol has given a reduced copy, besides a number of plates,

representing on a larger scale, special parts of the surface. The general character of the moon is highly irregular, marked by huge mountains and pits, the height and depth of which have been accurately measured. About one-third part only of the surface presented to us is comparatively regular, this regular portion being plains, and not seas, as was formerly imagined. There is no appearance of water; and although astronomers are divided in opinion about the existence of an atmosphere, we are to conclude that the moon is not in its present state, adapted for the abode of organized beings. With regard to the mountains, a great number of them are isolated peaks, such as Teneriffe; mountain ranges, of which some reach a great elevation, are also present in the moon, though not a chief feature in its surface. At least three-fifths of its surface is studded with caverns, penetrating its body, and generally engirt at the top by a great wall of rock, which is serrated, and often crowded by lofty peaks. These caverns or craters as they are called, vary in diameter from fifty or sixty miles to the smallest visible space. And it is also remarkable that as they diminish in size, they increase in number.—*English Quarterly.*

For the New England Farmer.

OUR ARBORETUM.

Mr. Editor:—I once heard an enthusiastic votary of rural adornment strongly advocate the establishment, in our town, of a Park to be sustained at public expense. He thought, "a park of a hundred acres, comprising hill and dale, and water scenery, beautifully laid out, in walks and drives, a perfect arboretum of all the trees and shrubs that will grow in this vicinity, beds of flowers of every variety of hue; with seats and arbors appropriately scattered about," &c., would greatly promote a genial sociability among us, and aid in developing all the finer traits of character in our towns-people. He was not without hope of living to see such an institution flourishing here; and thought it not impossible that some wealthy lover of humanity might furnish the means for its establishment. I agree with my friend in the belief that such a park would be a very valuable institution in any town. And, with your permission, Mr. Editor, I will say to him, and to others, that we already have very nearly the thing that he proposes, only the area of our arboretum is to be measured by thousands of acres, instead of being restricted to a paltry hundred. And if he will thoroughly explore this arboretum, he will find a variety of plants, as large, I think, and certainly as beautiful, as in any field of equal extent within many miles of here. He will find a liberal allotment of rare plants, and a goodly share of those most eminent for beauty of foliage or flower. If I were skilled as a describer of landscapes, I would tell him of the various beauties of scenery to be found there; of cosy nooks with their mossy rock seats; of the beautiful drives that wind about in every direction, some through disused roads, where the carriage bends down the intruding sapling in its passage, some over the soft leaf carpet under ancient pines, some that are not so smooth as those where every grain of sand has been artificially laid, and all been made so even that as you roll along over the surface you are hardly conscious of motion, but roads where stones and stumps and deep ruts give you every now and then a good shaking that stirs the blood, even though you may have a slow and reliable horse; of those wood-roads winding around and over hills and through valleys; giving glimpses of rocky cliff, of lake, of river, of distant mountain, of green fields, of villages and scattered farm-houses. But trusting that he will see these things for himself, I will pass to the less difficult and shorter labor of naming some of the flowers to be found in the valleys and on the hills, in the woods and on the plains of our large botanic garden. These are so numerous, and so many are worthy of favorable mention, that I hardly know which to select to speak of without trespassing too much on your columns. I will name them nearly in the order of their blossoming.

Among the earliest of our spring flowers, and certainly one of the finest, is to be ranked the *Mayflower*, (Epigea repens,) sometimes called the trailing arbutus. This is found in several places in this town, though not in large quantities, and probably grows more or less in most towns in this region. It is to be found almost as soon as the snow is off the ground in spring. It is a low vine, creeping among the dry leaves in the woods, and you find the small flowers at the end of the branches, sometimes white, sometimes shaded with a delicate rose color, and always charged with a pleasant spicy odor. Very abundant in Plymouth county, and derives its common name from the ship that brought over the Pilgrims.

The *Liver-leaf*, (Hepatica triloba,) is another very early and a very beautiful light blue flower. It is not found here, I believe; but it is worth looking for. I once drove twenty miles to the easterly part of Malden, to see it growing in its wild home. I found it on a steep, rocky hill-side, shaded by young wood, and the beauty of the flower well repaid for the trouble of finding. I brought away a number of plants, and if they fulfil their promise it may not be so difficult for the flower lovers of some future generation to find the hepatica peeping at them from among the dry leaves in some quiet nooks of the Concord botanic garden.

The *Houstonia*, a little bluish-white flower, common everywhere in May and June, has also a claim to be called beautiful, even though so abundant that we can hardly avoid crushing many under our feet as we walk in the fields. We are generally inclined, perhaps, to overlook the beauties that are every day before us. We want something that is dear bought, or rare, or far-fetched. If the Houstonia had come from our antipodes in Australia, or from some tropical region, and were difficult of cultivation, I doubt not it would be a favorite. The *Violets* come into flower at the same time; and notwithstanding their commonness, are generally petted. There are many species; I have found at least eight, on my own little farm. The largest and most common violet in this town, the pedate, or bird's foot, is often so abundant as to give to large portions of our dry pastures a blueish purple appearance, that may be distinctly seen at a considerable distance. This is slightly fragrant, as are also the two white species that are common here.

We have three species of *Andromeda*, in Concord, the earliest of which, (Andromeda caliculata,) flowers in April. It grows chiefly in wet, boggy places, is a small evergreen shrub, and forms its

flower buds in autumn. They appear on the under side of the slender stem, at the axils of the leaves. The flower is white, shaped much like that of the blueberry. Stems of this plant taken in February, or March, and kept in water in a warm and light room, for a week or two, will flower nearly as well as in the open air, later in the season. We have had the flowers, thus produced, all through the month of March. There is another species, (Andromeda polifolia,) a smaller plant, with narrow, bluish-green leaves, and bearing at the tip of its stem a drooping cluster of white flowers tipped with red; very beautiful, and also very rare. I have only seen it in one small shaking bog at the south-west part of the town.

The *Convallaria*, or small Solomon's seal, with its cluster of snow-white flowers at the top of its short stiff stem; the *Trientalis*, exhibiting on its slender stem, starting from a whorl of green leaves, a flower of such pearly whiteness that it might well be adopted as an emblem of purity. These thrive best in cool and moist shady places. In such situations they grow in great abundance, and are very beautiful then.

The *Fringed Polygola*, a fine purple flower growing on a short stem, has a beautiful appearance mingled with the young grass in May. It grows by the road-side in the southwest part of the town, and more abundantly in other places not so readily found. Likes a rather moist soil.

The *Rhodora* is not, perhaps, common enough to have been seen by all, yet it is well diffused in this neighborhood. It is a bright purple flower, appearing before the leaves, late in May, in most places. This flower suggested a fine poem, to Mr. Emerson, in which he thus apostrophises it.

"Rhodora! if the sages ask thee why
This charm is wasted on the earth and sky,
Tell them, dear, that if eyes were made for seeing,
Then Beauty is its own excuse for being.
Why thou wert here, rival of the rose!
I never thought to ask, I never knew;
But in my self same ignorance, suppose
The self some Power that brought me here, brought you."

The *Cranesbill Geranium*, a showy and delicately beautiful flower, is one of the most common ornaments of the moist and partially shaded borders of our swamp lands; begins to blow about the middle of May, and continues through June.—Many flowers less beautiful than this are cultivated in our gardens. Perennial.

The bulbous *Arethusa*, a rich purple flower, growing single on a leafless stem in many of our wet, mossy swamps, should have a word of praise, though all who have seen it will agree that it carries its own recommendation in its face. I was upon the point of expressing regret that it had not a green leaf of its own, but am not sure that it does not now better harmonize with its mossy surroundings. Last of May.

The *Ledum*, or Labrador tea, is a small evergreen shrub, growing in cold bogs, and has a pretty cluster of small white flowers. It belongs to the far North, or to mountain regions, and has been found in only one small swamp in Concord, and in no other place within many miles. The leaves have a rusty appearance, rolled back on the edges, wooly on the under side, and possessing a strong odor, resembling that emitted by an angry wasp.

The *Linnæa* is another rare flower, found here in only two small patches. The plant is a slender evergreen vine, creeping among the leaves in shady woods. Its small nodding flowers are very fragrant. It was a special favorite with Linnæus, and chosen by him, in preference to all more showy and ambitious candidates, to bear his name.

The *Harebell*, (Campanula rotundifolia,) named and praised by all the poets, has not been found growing wild in Concord, but is common in Essex county and the eastern part of Middlesex. I have a plant in my own private little garden, and am much pleased with its past performance and present promise. Last Summer it hung out its blue bells about the end of June, and continued in flower through September.

The *Mitchella*, also often called twin-flower, is another very pretty inhabitant of the shady woods, common everywhere. It is a trailing vine, peculiar in having two perfect flowers united at the base on one germ, the two flowers producing only one bright scarlet berry, which remains on the vine through the winter, and even after the new flowering in June. Also called checkerberry and partridge berry. M. P.

Concord, June 15, 1862.

AMERICAN POMOLOGICAL SOCIETY.

In conformity with a Resolution adopted at the last meeting of this National Association, the undersigned, President thereof, gives notice that its NINTH SESSION will commence in the HALL OF THE MASSACHUSETTS HORTICULTURAL SOCIETY, corner of Washington and West Streets, Boston, Massachusetts, on WEDNESDAY, SEPT. 17th, 1862, at 12 o'clock, noon, and will continue for several days. All Horticultural, Pomological, Agricultural, and other kindred institutions in the United States and the British Provinces, are invited to send Delegations as large as they may deem expedient, and all other persons interested in the cultivation of Fruits are invited to be present, and to take seats in the Convention.

The present season promises to be the most propitious for Fruit that has occurred for many years, and it is anticipated that the coming session, which takes place at the same time with the Annual Exhibition of the Massachusetts Horticultural Society, may be made one of the most interesting which has ever been held by the Society. All the States and Territories are urgently invited to be present, by Delegation, at this meeting, that the amicable and social relations which have heretofore existed between the members of the Society may be fostered and perpetuated, and the result of its deliberations, so beneficial to the country at large, be generally and widely diffused.

Among the prominent subjects to be submitted at this session will be the Report of the Special Committee appointed to revise the Society's Catalogue of Fruits, and thus to ascertain what varieties are adapted to the different sections and districts of our country. The various State and Local Committees who have not already made their Reports on the Revision are, therefore, solicited to forward them, without further delay, to P. BARRY, Esq., Rochester, N. Y., Chairman of said Committee. And it is further requested, that all other Reports, which are by the By-Laws made returnable to the General Chairman of the Fruit Committee, now deceased, may also be addressed to Mr. BARRY, as aforesaid.

Members and Delegates are requested to con-

tribute specimens of the Fruits best adapted to their respective districts—to furnish descriptions of the same, their mode of cultivation, and to communicate whatever may aid in promoting the objects of the Society and the science of American Pomology.

Each contributor is requested to come prepared with a complete list of his collection, and to present the same with his Fruits, that a Report of all the varieties entered may be submitted to the meeting as soon as practicable.

All persons desirous of becoming members, can remit the admission fee to THOMAS P. JAMES, Esq., Philadelphia, or the PRESIDENT, at Boston, who will furnish them with the Transactions of the Society. Life Membership, Ten Dollars; Biennial, Two Dollars.

Packages of Fruits may be addressed as follows: "AMERICAN POMOLOGICAL SOCIETY, care of Mass. Hort. Society, Boston, Mass."

MARSHALL P. WILDER, *President.*
THOMAS W. FIELD, *Secretary.*

For the New England Farmer.

INSECTS INJURIOUS TO VEGETATION.

BY JUDGE FRENCH.

In 1837 a Commission for the Zoological and Botanical Survey of Massachusetts was ordered by the General Court. To Dr. Thaddeus William Harris was assigned the department of Insects, and his report was first published in 1841, at the expense of the State. In 1852, the first edition having been exhausted, a second was published, under the direction of the author, enlarged and improved by him, and in 1859, by a resolve of the Legislature, the Secretary of the Board of Agriculture was directed to issue a third edition, with additions and with illustrations which were wanting in the former editions.

We have before us, as the result, perhaps the most perfect and reliable work of the kind ever published. In point of mere mechanical execution, paper, engraving, printing and binding, the book is said, by competent judges, to be equal, if not superior, to any other volume ever published in America. Indeed, the State edition, with its tinted paper and embossed cover, seems designed rather for the parlor table, than the hard hands of the farmer.

The hundreds of wood and steel engravings, now first published, have been executed under the direction of Prof. Agassiz, and by him carefully compared with living specimens, and Mr. Secretary Flint has availed himself of the first talent in the country to make the work honorable to the State.

The publishers, Crosby & Nichols, have recently issued an edition less expensive than the first, from the same plates, with colored illustrations, and in all respects like the other, except in the cost of paper and binding. This edition is sold at $3 50 a copy, and although only of about half the cost of the State edition, is as elegant a volume as any man ought to make common use of.

HOW MANY INSECTS THERE ARE.

An English entomologist has stated that on an average there are six distinct species of insects to one species of plants. Mr. Harris thinks there are four to one in America, and that as there are 1200 flowering plants in Massachusetts, it is fair to estimate 4800 different species of insects in this State. This will furnish excuse enough for the omission, to any reader, who shall find some specimen of an insect which has not sat for its portrait in this collection. Mr. Harris modestly entitled his work a treatise on *some* of the insects injurious to vegetation, and the attempt has been made throughout to inform the reader of the habits of such as are most common and most destructive. Such a work is invaluable to the farmer and fruit-grower. We can only arrive at the means to defend ourselves against such pests as the canker worm, the curculio and the wheat flies, by carefully studying their habits and methods of reproduction, and with all that art and science can do for us, we shall always find warfare with those enemies to be a condition of success.

PROPENSITY TO DESTROY EACH OTHER.

Mr. H. W. Beecher said, when some one desired some solution of the doctrine of natural depravity, that it was of less importance to know how sin got into the world, than how to get it out; that if a man saw a pig in his garden, his first business was to drive him out, and not to sit down and speculate on the question of how he got there. Why all animals were created with a propensity to bite, and worry, and devour other animals, is not very plain, but the fact is manifest that if, in Adam's fall, we sinned all, the beasts and insects shared in the general wreck. The fact that the birds devour the insects, and that some insects, harmless to us, are destructive enemies of our worst foes, is of practical daily use, and one of the great problems in life is to know how to distinguish friends from foes. That crows pull up corn, and that robins eat cherries, are unpleasant circumstances to some of us, but whether these birds do not earn their living by devouring noxious insects and worms is another question. We have seen a man shoot a whole brood of orioles from nests that had hung on the old elm by the house for a generation, because they destroyed his green peas. He said they did it solely for mischief, for they merely shelled out the peas and left them. We thought if he knew as well as we did how many pea grubs he ate with his peas, and that the orioles only wanted the grubs, he would be willing the poor birds should have their share of them.

Not only do birds destroy insects, but every in-

sect seems to have some mortal foe, some evil spirit, as it were, ever in close pursuit of him. Plant lice, for instance, are savagely slaughtered by the innocent looking little beetle, called the lady-bird, as they are also by several species of fly. Kirby says that he found it very easy to clear a plant or small tree of lice, by placing upon it a few larvæ of these flies. If we only knew fully the habits of the various insects, no doubt we might train up packs of hunters that would take the track of plum weevils and canker worms, and hunt them to death, as hounds follow a fox; but the difficulty is, as before suggested, that we do not know friends from foes. There is a world-wide difference between a patriot and a *secesh*, but they look so much alike, that frequently we mistake and fire on our friends.

DOR-BUGS, PEA-BUGS AND ROSE-BUGS.

These may be set down as unmitigated rascals, with some others already alluded to. We use their common New England names, which are neither elegant nor accurate. The dor-bug does more mischief than is generally known. The grub, which is a white worm, with a brownish head, devours the roots of grass and other plants, often destroying large tracts of the latter. In Europe, the cockchafer, which is of the same class, has at times been destructive of all vegetation for miles. About seventy years ago, a farmer in Norwich, in England, with his men, gathered eighty bushels of these beetles, and the English societies for many years offered premiums for the best account of this insect, and the means of checking its ravages. The common dor-bug is frequently destructive to the foliage of cherry and other fruit trees. They may be effectually checked by shaking them off at night, upon sheets. They may then be destroyed with boiling water, and fed to swine. They may be better gathered early in the morning, when they do not attempt to fly.

We would not be so unfeeling as to publish what we know about pea-bugs, were it not so easy to guard against them. If you examine early green peas on the table, you will often find on them a whitish spot, under which is a small maggot, which when properly boiled and buttered, is perfectly healthful, and no doubt very nourishing; but as many prefer their meat served up in a separate dish, it is well enough to know how to effect that object. The pea-bug is usually planted in the pea. About the time the pea is half-grown in the pod, she comes up from the ground, punctures the pod and deposits in it opposite each pea, an egg, which hatches and becomes a grub, and works its way into the pea, and if not eaten green, is transformed into the weevil, which remains quietly in place till the next spring. Now, if you will put the seed peas into water nearly boiling, the weevils will all die, or come out, or if the peas are kept over one season, the weevils will not survive. If weevils are planted, they are sure to come up. As they fly very well, they may come to us from our neighbor's grounds, but if market-men should find that their customers paid more for green peas free from grubs, they would soon destroy them by some of the means suggested.

The rose-chafer, or rose-bug, is sometimes a great scourge not only upon the rose, but upon the grape also. The eggs are deposited about four inches under ground, where they hatch in autumn, descend below frost for the winter, ascend again in spring, and stop near the surface, where the grub becomes a pupa, and in June, at about the time of the first blooming of roses, assumes the final form of a beetle, digs its way up to the surface, and enters upon all such mischief as its evil nature prompts. The only method of destroying them is by picking or shaking them off, and puting them into boiling water. A few days of persevering effort will reduce their numbers, and give the roses a fair chance.

We advise our readers to study carefully Dr. Harris's Treatise, both for pleasure and for practical, useful knowledge, and at the same time to carefully study from nature the habits of the insect tribes.

VOICES OF ANIMALS.

There is a chapter in the natural history of animals that has hardly been touched upon as yet, and that will be especially interesting with reference to families. The voices of animals have a family character not to be mistaken. All the canidæ bark and howl. The fox, the wolf, the dog have the same kind of utterance, though on a somewhat different pitch. All the bears growl, from the white bear of the Arctic snows to the small black bear of the Andes. All the cats *miau*, from our quiet fireside companion to the lions, and tigers, and panthers of the forest and jungle. This last may seem a strange assertion; but to any one who has listened critically to their sounds and analyzed their voices, the roar of the lion is but a gigantic *miau*, bearing about the same proportion to that of a cat as its stately and majestic form does to the smaller, softer, more peaceful aspect of the cat. Yet, notwithstanding the difference in their size, who can look at the lion, whether in his more sleepy mood, as he lies curled up in the corner of his cage, or in his fiercer moments of hunger or of rage, without being reminded of a cat? And this is not merely the resemblance of one carnivorous animal to another; for no one was ever reminded of a dog or a wolf by a lion. Again, all the horses and donkeys neigh; for the bray of the donkey is only a harsher neigh, pitched on a different key, it is true, but a sound of the same character, as the donkey himself is but a clumsy and dwarfish horse. All the cows low, from the buffalo roaming the prairie, the musk-ox of the Arctic ice-fields, or the jack of Asia, to the cattle feeding in our pastures. Among the birds this similarity of voice in families is still more

marked. We need only recall the harsh and noisy parrots, so similar in their peculiar utterance. Or take, as an example, the web-footed family. Do not all the geese and the innumerable hosts of ducks quack? Does not every member of the crow family caw, whether it be the jackdaw, the jay, the magpie, the rook, in some green rookery of the old world, or the crow of our woods, with its long, melancholy caw, that seems to make the silence and solitude deeper! Compare all the sweet warblers of the songster family—the nightingales, the thrushes, the mocking-birds, the robins—they differ in the greater or less perfection of their note, but the same kind of voice runs through the whole group.—*Agassiz.*

For the New England Farmer.

POOR AND RICH LAND.

MESSRS. EDITORS:—After having resided in different towns in four different counties in New England, for more than 75 years, and making such observations on farmers and farming, on rich land and on poor land, as I was able to do, I have come to the following conclusions:

First, that industry, economy and good calculations are absolutely necessary, and of main importance, on any kind of land, in conducting a farm. The next consideration is for the farmer to select good land if he can, but if destiny has decided his lot, (as it will upon the greater number,) to settle upon poor land, let him make the best he can of it. Here, in New England, we find several varieties of what is called poor land, as well as varieties of rich land. Large tracts of pine plains, swampy lands, barren knolls and mountain tops, constitute the poor lands. Large swells, covered with hard wood growth, or from where hard wood has been removed, with alluvial valleys, and some other varieties, are considered as a class belonging to rich lands.

Farmers that settle upon the rich lands, under good management, get larger crops than those do on the poor soil, we suppose, as a matter of course, but when we take into consideration the extra amount of labor necessarily expended on strong, hard land, sometimes stony, more than what is required to cultivate the pine plain land, the result as to profit would be doubtful. On strong, hard land, 40 or 60 bushels of corn to the acre, in New England, has been considered a fair crop, and on the plains, from 30 to 40 bushels. Corn is but an item, our marketable crops are roots of various kinds, hay, wood and lumber, apples, pears, cranberries and other fruits, and when we come to look at the lands most favorable to these productions, we find many of them included in the category of poor lands. I have lived in four or more different towns composed of strong, hard soil, some of it predominating with clay. I have lived in towns where a thin, porous, plain soil, predominated, the land easily cultivated, and susceptible to manure with advantage. I have observed that in towns consisting of strong, compact soil, that hay was the staple, or principal commodity, and that wood was of very tardy growth, if it would grow at all, and that farmers complained bitterly, after selling their hay and fruit, to be obliged to spend the money, thus obtained, for manure, or let their fields run to barrenness, and I have seen many excellent farms, in other respects, that did not produce wood enough to supply the houses with fuel. These strong land farms, situated upon beautiful locations, make a splendid show, and are more saleable than farms consisting of boggy, peat land, cranberry meadows, sandy plains and growing forests, that will produce a crop of wood and lumber once in from 25 to 40 or 50 years. The advantages of the strong, heavy soils, are their aptitude to produce hay and feed for cattle, apples, and some other kinds of fruit, and heavier crops of some kinds of grain and roots, than usually grow on light land, with the important consideration of its being a more saleable article.

On the other hand, the pine plains and boggy land produce peat for fuel, cranberries, the king of fruits, without manure, wood in rapid succession, bog-hay, better than nothing, good, soft water, a privilege worth more than a thousand acres of prairie, with poison water, and also respectable crops of grain, fruits, roots and other productions, under a less laborious cultivation than is necessary on the stiff, strong soils.

I have seen numerous hard wood farms, or farms originally covered with hard wood, pleasantly located in the county of Essex, many of them now almost destitute of wood for fuel. I have been acquainted with numerous farmers and farms in the county of Middlesex, the farms consisting of the level, pine plains, swamps and bog-meadows, and it is with difficulty that I can decide which of the parties is best off. Those on the hard land farms sell hay, butter, fruit of some kinds, beef and vegetables. Those on the pine land farms sell wood, lumber, cranberries and other fruits, some beef, butter, and various other little commodities in common to both kinds of soil. As far as I have investigated the conditions of both classes of farmers, I have been inclined to the opinion that the class of farmers living on the plains have fewer mortgages to remove from their lands, and more ready cash on hand for purposes of convenience, and that their land is more easily cultivated, if their crops are not so abundant to the acre. I have supposed the farmers on both kinds of soil to be equal in industry, economy and skill.

SILAS BROWN.

North Wilmington, Mass., 1862.

THE IRISHMAN IN IRELAND AND IN AMERICA.

The Irishman when he expatriates himself to one of those American States loses much of that affectionate, confiding, master-worshipping nature which makes him so good a fellow when at home. But he becomes more of a man. He assumes a dignity which he never has known before. He learns to regard his labor as his own property. That which he earns he takes without thanks, but he desires to take no more than he earns. To me personally he has, perhaps, become less pleasant than he was. But to himself! It seems to me that a such a man must feel himself half a god, if he has the power of comparing what he is with what he was.

It is right that all this should be acknowledged by us. When we speak of America and of her institutions we should remember that she has given to our increasing population rights and privileges which we could not give—which as an old

country we probably can never give. That self-asserting, obtrusive independence which so often wounds us, is, if viewed aright, but an outward sign of those good things which a new country has produced for its people. Men and women do not beg in the States; they do not offend you with tattered rags; they do not complain to Heaven of starvation; they do not crouch to the ground for half-pence. If poor, they are not abject in their poverty. They read and write. They walk like human beings made in God's form. They know that they are men and women, owing it to themselves and to the world that they should earn their bread by their labor, but feeling that when earned it is their own. If this be so—if it be acknowledged that it is so—should not such knowledge in itself be sufficient testimony of the success of the country and of her institutions?—*America, by Anthony Trollope.*

For the New England Farmer.

LITTLE THINGS:

Or, A Walk in My Garden.

THE PLUM TREE.

Two essential things are necessary in the successful cultivation of the plum. The first is, to give them a chance to grow about as thriftily as possible, and then carefully head in the year's growth at least one-half, in order to force out a quantity of fruit spurs. I generally see this neglected among farmers, and the consequence is, we have a few long barren limbs, when the whole top should be covered with these spurs. I raised a bushel and a half of plums two years ago from a small tree. It bore just as many as could find a place to hang on the tree. Nurserymen understand these things, and so should farmers who buy of them. Plum trees that are highly cultivated, will, in bearing years, blossom profusely, and be more than a match for the curculio to puncture them all, while those which grow in grass plots and receive little cultivation are pretty sure to be destroyed. It is better to depend upon a few crops from a tree at a high rate of cultivation, than to look for a small crop and a long life. So far as my opinion goes, the farmer who only wishes for a few trees should have only two or three of the most productive and hardy sorts. These are the Lombard, Imperial Gage and Jefferson Plum. These will ensure good crops if anything will. Fancy cultivators may increase the number of varieties indefinitely. But who is that man yonder, just entering the garden gate? O, it is one whom I have long pictured to myself as

A CONTENTED MAN.

I have a friend whom I, for a long time, have looked upon as a contented, and, consequently, a happy man. He is not a wealthy man; nor has he acquired fame in civil or military life, and fallen back into a happy retirement. He is a shoemaker; and I have looked at him as he worked on his bench with the feeling that there was such a thing as one contented man in this world. He had a good education; had travelled extensively, and wrote poetry worthy of more than a passing notice. He touched the guitar most delicately, which, with his voice, caused breathless silence to all within hearing. For a change, he would spend an hour with the pencil, and transfer to canvas some mountain or cottage scene. Stepping into his shop, I have conversed with him on all these subjects to which allusion has been made, and found in him my teacher, and a man of the finest sensibilities.

My first thought was that of wonder, that my friend should take up, keep and be satisfied with his occupation, but I soon reasoned myself into the belief that he was a real philosopher, and knew better than I how to be happy. He was an excellent workman, and had the confidence and patronage and good will of everybody. I therefore came to the conclusion that he was a contented man. He was attentive to his religious duties, and recognized the claims upon him, from whatever source they came.

Matters went on in this way for some time, when, all of a sudden, I was surprised to hear that my philosophical friend had sold out his stock, and had resolved to enter one of the learned professions! I seated myself in a chair and fell into a strange reverie upon the uneasy condition with which mankind is so universally affected. Still I learned one valuable lesson, that in any position in life there may be a cultivated mind and heart, a dignity and honorable character which will command the respect of the public. I cannot say that my friend was wrong in his course; but he must bid adieu to all personal comfort, and transfer it all for the benefit of others.

Happy the man that is contented with his lot, and who can pass through the whole year without at any time repining at his condition. Where can such a man be found?

P. S. Since writing the foregoing, I learn that he is not intending to change his occupation, but that he is gone out West where he can make more money! Moreover, he is not married.

HOMINY ALL THE YEAR ROUND.

While adjusting a self-shutting gate to my garden the other day, a neighbor came along and put the strange question, "Do you love hominy?" "Yes," I replied, "but I don't see it at this time of year." "You can have it as well now as in autumn," said he. So he told me how to have hominy all the year round.

Take your corn and put it into water at night just so as to wet it, take it out immediately, and the next day tell your miller to grind you some hominy. That is all. As this may be new to some, I give it for the benefit of every lover of hominy.

While looking over my orchard to-day I have been reflecting on the subject of

SPRING PRUNING,

which I have practiced in the same orchard for thirteen years past. My conclusions are these. If a tree is pruned in spring, it will certainly bleed and be of little value. Exceptions to this may sometimes be seen in trees of a vigorous growth when the leaves seem to elaborate all the sap and they do not bleed. But how is it when the wounds are protected? Formerly I covered the wounds with grafting wax, but the wood is liable to rot beneath in large trees, and I now paint them with yellow or red ochre and linseed oil, and the wood becomes hard and heals readily. Are there any physiological effects different in their

influence on the tree when pruned at different seasons? I know of none. My practice now is to paint every wound, no matter how small the tree.

The editor of the *Farmer* advocates August pruning. But let us see. I find in the spring that a large limb has winter-killed. Now, if I let that remain till August before I saw it off, where will be the line of demarcation between the living and dead parts. If I cut it in the spring, the new wood begins at once to form over the wound; if I leave it till August, one year must be lost, and I am inclined to think that, if a dead limb remains during the summer, the body of the tree becomes more affected below the dead branch than if removed, just as the mortification in a toe will communicate its poison to the trunk. These are plain, practical questions, and rather lead the mind of those most experienced in these matters not to be too tenacious of any fixed course, but to adapt their practice to circumstances. I have proposed these questions without feeling absolutely certain that I am right. I ask for light. N. T. T.

Highland School, Bethel, Me., June 6, 1862.

REMARKS.—Where does the editor of the *Farmer* "advocate August pruning?" We do not remember to have done so, but have recommended pruning from the fifteenth of June until midsummer, because the sap has then—in a great measure—been withdrawn from the stem and large branches of the tree, by the leaves, and comparatively little is left to flow out when the tree is cut. If the work was neglected in June, then, we say, prune in the autumn, after the leaves have fallen, because at that time the tree is in a comparative state of rest, and wounds then made will rarely bleed.

Not being able to finish pruning last June, in a neglected orchard, we continued the work into November, removing a large number of limbs that should have been taken away two or three years earlier. This spring, and up to the present time, hundreds of these wounds have been carefully examined, and with *two exceptions* only, they are dry and hard, and present all the usual indications that they will rapidly heal over.

We are glad to notice, all about us, that summer pruning is becoming common, instead of doing the work in March, April or May.

A HINT THAT MAY BE GENERALLY TAKEN.—A friend informs us that at a concert which took place in a town that shall be nameless, last Friday evening, a gentleman in the audience rose up just as the third piece on the programme had been performed, and said: "Mr. Conductor, will you oblige me, sir, by requesting your vocalists either to sing louder or to sing in whispers, as there is a conversation going on close by where I sit that is conducted in such a loud tone as to entirely hinder my enjoyment of the music. I prefer, certainly, to hear the concert; but if I cannot be so privileged, I desire to hear the conversation." There was an extremely quiet and attentive audience in the hall during the rest of the evening.

For the New England Farmer.

FARMERS AND NATURAL HISTORY.

MR. EDITOR:—It is sometimes interesting and amusing to learn from correspondents what is expected of farmers, who, pre-eminently, live by the sweat of the brow. When a person has learned to distinguish a crow from a robin, or a hawk from a dove, a grasshopper from a house-fly, a butterfly from a mosquito, a flea from a spider, a toad from a frog, or an elm from an apple tree, he at once sets up to exhort farmers to study Natural History, urging the absolute necessity of their becoming thoroughly acquainted therewith, in order to succeed well in growing potatoes, turnips, corn, wheat and grass. What help does the farmer, for example, well versed in entomology, derive therefrom on a visitation of the caterpillar, the palmer worm, the canker worm or the army worm, over his unread neighbor? Are not his fields and orchards as liable to their visitations as those of his neighbor who makes no claim to a knowledge of this department of natural history? When these learned doctors in entomology are applied to for relief from the depredation of insects, is it obtained? Let those who have tried to obtain it, answer.

It does not follow, because a farmer cannot systematically name birds, quadrupeds, reptiles and insects, coming under his observation, that he knows nothing about them. Observation gives farmers a good practical knowledge of the habits of the animal pests that frequent their fields, orchards and gardens. When a learned D. D. says, "Farmers hardly know a chipping sparrow from an owl," he shows himself as ignorant of farmers, as they, forsooth, are of his transcendental speculations in metaphysical hypotheses. Everybody, almost, seems ready to echo the charge that farmers are a terribly ignorant class of men. It has been truthfully said, that "It takes wisdom to see wisdom, knowledge to discover knowledge." In view of this old saying, let these learned pundits first prove their claim to being wiser and more learned than farmers. Until they do it by some more conclusive way than that of accusing farmers of ignorance, I, for one, shall pity them rather than feel annoyed by their impertinence.

I claim for farmers, as a whole, that they understand their business as well as any other industrial class; and in confirmation of this, allow me to state what no man can controvert, that they produce many times more personal and national wealth than all other industrial classes, while it is true, beyond successful denial, that the number of farmers is many times greater than that of all other business men, yet the number of bankrupts among farmers is very much smaller than that found in the other classes of men engaged in mercantile and other manual labor pursuits.

While I would not object to a farmer's getting all the knowledge he can, as he journeys on, in regard to all subjects for which he has taste and leisure, yet I would not impress him with the notion that he cannot farm, and farm profitably, too, without being an Agassiz in the Natural History of Animals, or a Gray in Botany, or a Hitchcock in Geology, or a Dana in Mineralogy, or a Liebig in Organic and Agricultural Chemistry. As well might one maintain that a minister, lawyer or doctor is unfit to practice his profession until he first

makes himself thoroughly master of, and conversant with, the curriculum of knowledge, or to maintain that a person cannot enjoy health, until he is thoroughly conversant with a knowledge of anatomy and physiology. Farming is an art, and those who practice it as such, are they who have been the best and most successful farmers, and have accordingly made the most money. Let intelligent farmers beware of "professional ignorance," says one practical FARMER.

THE VALUE OF COAL ASHES AND CINDERS.

Coal ashes are, as a general thing, thrown away and thought a nuisance. But after some experience I am inclined to take a different view of the matter.

It may be, and undoubtedly is the case that they are less valuable than those derived from wood. The ash of coal contains gypsum, lime and phosphoric acid, but its main bulk is composed of insoluble silica. I have found coal ashes to be very useful in the peach orchard; in the fall they should be spread around the root of the tree at the rate of a good-sized wheelbarrow load to each tree, and spread some five inches thick at the trunk, and sloping off gradually all around; the ashes should be allowed to remain in this position until the tree is out in blossom, when they should be spread over the orchard. I consider that I have derived much benefit from this plan, and would account for it in the following manner. We all know by experience that a large pile of coal ashes will retain the frost much later than common soil—the ashes at the trunk of the tree (as I have proven by experiments,) retain the frost later in the spring, and prevent the trees from coming out in bloom too soon. Another good effect is that ashes thus applied will keep off the peach worm, which is often so destructive to the trees. Besides these mechanical advantages, coal ashes contain substances which are beneficial to vegetation of all kinds. Last winter I kept a portion of coal ashes under shelter until the ground was well frozen, when they were spread as before; if the effect should be thereby changed, I will report at the proper season. This system will apply as well to other fruits as to the peach. I have tried it with the same success on apple, pear and cherry trees.

If coal ashes produced no other advantage than the mechanical one of loosening the soil, they would still be valuable. But the following analysis, by Prof. Norton, proves them to be valuable as a manure. He found one hundred parts of ash from white ash coal, without any wood ashes from kindling, contained of

Insoluble silica	88.68
Soluble	0.09
Alumina	3.36
Iron	4.03
Lime	2.11
Magnesia	0.19
Soda	0.22
Potash	0.16
Phosphoric acid	0.20
Sulphuric acid	0.86
Chlorine	0.09

Those who advocate the application of iron to peach trees will find another reason for my success in the amount of that substance contained in coal ashes.

One of my neighbors has for many years applied coal ashes to his potato patch as a preventive of rot, and has not since been troubled with rotten potatoes. He retains the same piece of ground several years in succession, and applies coal ashes in large quantities each year. He attributes his success to the loosening or mechanical effects of the ashes, but I attribute his and my own success in this line to early planting and early digging.

As to whether it will pay to buy or haul coal ashes far, I cannot say, but by the above analysis we see that nearly ninety pounds in every one hundred is of no value as a manure; that the whole potash from one ton of coal ashes would amount to but three pounds, which may be obtained at a cost of twenty-five cents; the sulphuric acid would amount to but eighteen pounds in the ton, and would cost but about sixty-two cents. Apart from the insoluble matter the ashes would be as valuable as some of our patent fertilizers.—AGRICOLA, *in Germantown Telegraph.*

For the New England Farmer.

"SPREADING MILK."

Your New Hampshire correspondent "M." says he has a valuable heifer whose milk spreads very badly, and inquires whether there can be any remedy. I have often heard of this imperfection, and though I cannot call it a failing that should induce a farmer to dispose of a good cow, as some have done, it is surely a source of much annoyance to the milker.

There can be a remedy for this in most cases, unless there is a natural imperfection in the orifice of the teat, in which case it may possibly be outgrown. I cannot tell what may be the cause in this particular case, but I should advise our friend "M," to make an examination, if he has not already done so, and, if he can find out the cause of the difficulty, it can, most probably, be remided Sometimes a disagreeable spattering is caused by a scratch, or sore, on the end of the teat; this can be easily cured by a salve which almost every family keeps in the house—Redding's Russia Salve. This, by the way, I think is the best salve for family use in the country.

This spattering is also caused by a fault which the milker is prone to get into, that of leaving the cow's teats wet after milking. This seems to be but a trifling matter, but in hot, dry weather it has a tendency to dry up the teats, the orifice becomes partially filled up, and what "M." calls "spreading" of milk follows. P. PAIGE.

South Hampton, N. H., June 19, 1862.

A SMUGGLER'S TRICK.—A novel way of smuggling is reported in the French papers. A watchmaker of Alencon having lately offered some Swiss watches at exceedingly low prices, was asked how he could afford to sell them so cheap. "O, that is simple enough," he replied; "I bought them of a wild beast showman who had just come from Switzerland." Before leaving Geneva he bought a quantity of watches, which he concealed under the litter of his lions' cage. It is hardly necessary to mention that the Custom House officers at the frontier did not venture to search there for contraband goods.

NEW PUBLICATIONS.

THE ILLUSTRATED HORSE DOCTOR. Being an accurate and detailed account of the various Diseases to which the Equine Race are subjected; together with the latest Mode of Treatment, and all the requisite Prescriptions. Written in plain English, and accompanied by more than 400 pictorial Illustrations. By EDWARD MAYHEW, M. R. C. V. S. Philadelphia: J. B. Lippincott & Co., 1862. For sale by George L. Dix & Co., Boston. Price $2,00.

A person who loves the Horse, who studies his wonderful construction and adaptation to the wants of man, and who feels a new dignity and power when he sits upon a noble charger or has a pair of mettlesome steeds in hand, can alone appreciate a *good* horse, or knows how very few there are worthy of the term. Few persons are aware of the difficulties they must encounter, before they can secure a horse that is of the right size, of the right temperament, one that is elegant in form and action, and capable of great endurance, if a case of necessity should arise to test his power. Unless occupied with some thought or care that is all-engrossing, we never pass a horse without giving him a critical notice, however brief that notice may be—and we sincerely believe that nine out of ten of them—both in city and country—are only remarkable for some physical defect, or some dangerous habit, alike perilous to both man and beast. They are mean, beyond description, compared with what they might be under a proper course of breeding and treatment; they are knock-kneed, have corns, splint, albugo, bots, broken wind, canker in the foot, colic, horse distemper, farcy, diabetes, curb, contraction of the foot, fistula, poll-evil, glanders, founders, heaves, mange, rheumatism, ringbone, sandcrack, roaring, get bone, bog and blood-spavin, blind staggers, stranguary and lockjaw, thrush, wind-galls and warts, and forty other diseases, that oppress and torment the poor animals a thousand times more than all the labor they ought to perform! What a frightful catalogue of diseases, to be visited upon one of the noblest animals—both in structure and disposition—which God has placed in our care, to subserve our wants or gratify our pleasures! Poor brute! Never was another so beset with evil, or treated with so much inhumanity.

There are two principal causes for all this, viz.:

1. Breeding from old and diseased animals;

2. The injudicious and harsh treatment which they receive.

It has long been a practice, and is a widespread one, to breed from aged and imperfect mares—mares that have been excellent animals, but are full of age and the imperfections that a large proportion of all horses acquire before arriving at the age of twenty years. One, for instance, has had crooked knees for ten years, another the spring halt, and another a capped-hock or the heaves. She is past serviceable labor in the field or on the road, and as the kind master is still desirous of making her profitable to him, he turns her over in old age to the pains of parturition, and just work enough in the plow or cart to pay for her hay and grain. This is done by thousands, who never think that these defects may be entailed upon the progeny of these mares, and thus a race of ill-formed, ill-mannered and comparatively worthless horses is perpetuated. For the purpose of breeding, the young or middle-aged of both sexes should be selected—and these should be of the best form, and possessing as many of the best qualities as can be found in a single animal. When these precautions are observed, we shall have a race of young horses to start with that will produce the finest animals, under a proper course of management.

The next prolific source of poor horses, is the injudicious, harsh, and very often cruel treatment, which they receive. Colts are put to work too young; pressed to the extent of their power, both in speed and draft, too frequently; and when fatigued or heated, are left in the storm or cold, or a draft, where agues and cramps are contracted that continue with them through life. They are often urged to turn suddenly and rapidly, which strains or breaks some of the nice organism, as in the case of splint or spavin. They are hampered with unnecessary and injurious harness, such as tight check rein and blinders, which leave them with imperfect vision, and their supple limbs tied and tormented into every shape but a natural one. These are all wrong, and the book whose title we have introduced at the head of this notice, undertakes to correct these errors—and not only this, where these faults have brought their legitimate fruits in lameness and disease, it teaches us how to cure and recover, as far as judicious treatment and veterinary skill is able. It is, probably, the best book that has ever been published in relation to the horse.

For the New England Farmer.

THE BAROMETER.

There seems to be a variety of opinions about the value of this instrument to the farmer, some placing implicit reliance upon it as a weather-indicator, while some, consider its teachings so uncertain, as to be of no practical value. These differences of opinion are probably due to three causes, namely, more or less care and judgment in observing its indications, *in connection with the season, direction of wind, &c.*; difference in action of the instrument itself in different localities, and difference in expectation of what it was capable of doing before obtaining it.

From the extravagent statements of some who had tried it, many were led to believe that it would tell them, with unerring certainty, when it would rain, and when it would be fair, and that, if the barometer did not indicate rain, they could go on with haying or harvesting with impunity, in spite of every other appearance of rain, and when dis-

appointed in this, condemned the whole as a humbug.

I have owned one of Timby's barometers nearly two years, and for one year of that time, have observed it carefully, several times a day, and have taken every opportunity to converse with those who have tried them, including at least one sea captain, and all seem to agree that judgment and careful observation, not only of the barometer, but of other indications, are indispensable requisites in its use, and that it is much more reliable in some places, than in others, owing, I suppose, to mountains which intercept currents of air. I think it generally gives little or no indication of a north-east storm, while a storm from the south, is generally preceded by a fall of the mercury, and a thunder shower is usually indicated by a rapid sinking, frequently of half an inch or more, depending, however, some upon whether the shower is to be followed by wind. Saturday, May 31, the column in the barometer fell slightly, and rose again during the night, which, I believe, is not generally considered to indicate rain, but on Sunday afternoon we had rain enough, with south-west wind, to have interrupted haying or harvesting, the mercury falling little more than a tenth, some time after the rain commenced, a very moderate thunder shower coming on Monday, followed, however, by very warm weather and little wind. During yesterday, Tuesday, June 3d, and last night, the mercury rose nearly four-tenths, the night being quite rainy, with a prospect of a long storm ahead, wind north-east. In some instances a barometer, a few miles from here, in a much more elevated position, has indicated rain several hours sooner than mine.

But to make the story short, I conclude that in a locality like this, whoever buys a barometer trusting for fair weather when the mercury rises, and expecting rain when it falls, will so often "catch a tartar" as to better off without it; but that with the aid of considerable experience and a good stock of "gumption," it may be made quite useful.

WM. F. BASSETT.

Ashfield, June 4, 1862.

A FINE RAIN.—On Friday evening, the 27th of June, at about 7 o'clock, a dark cloud commenced rising directly in the north, and soon assumed the grandest proportions. It was as black as midnight, and rose majestically towards the zenith, but gradually sweeping eastward until a new current brought it directly overhead, whence it spread in every direction, until the whole horizon was shut in by it. It gave audible notice of its coming from its appearance in the north, and as it approached and passed, the grandest and most brilliant fire-works were displayed, greatly enhanced by the rich baritone of the rolling thunder. The rain fell fast in great drops, which, with the lightning and thunder, and a lively breeze, gave the beholder a vivid manifestation of the power of Him who conducts and "rides upon the storm."

Never run into debt without a reasonable prob-

THE BOBOLINK.

The verses which we give below are not inappropriate at the present time, when this delightful singing bird has just arrived from his Southern quarters. They were published in one of the early numbers of the *Atlantic Monthly*, and were greatly admired by the editor, J. R. Lowell. Mr. J. J. Piper, of the *Fitchburg Reveille*, has pronounced them the best Bobolink song extant. To enter into the spirit of these verses, the reader should be familiar with some of the peculiar habits of the Bobolinks. These birds never sit still upon a branch, like other birds, while they are singing. As soon as they begin to sing, they take flight, and poise themselves upon the wing, as the English Larks are said to do, except that, as the Lark while singing is moving upwards, the Bobolink is moving in a horizontal direction. Frequently in an old orchard in the country, which is laid down to grass, there are from ten to a dozen pairs of these songsters; and the male birds, during the latter part of March and the whole of June, are constantly hovering over the field apparently in concerted action, as in an aerial dance, vieing with each other in the loudness of their notes, and the gracefulness of their quivering flight. For a full account of the musical habits of these and other native singing birds, we refer the reader to a series of five articles "On the Singing Bird and their Songs," by the author of these verses, commenced in the Second Volume of the *Atlantic Monthly*.—*Saturday Evening Gazette.*

THE O'LINCON FAMILY.

BY WILSON FLAGG.

A flock of merry singing birds were sporting in the grove,
Some were warbling cheerily, and some were making love;
There were Bobolincon, Wadolincon, Winterseeble, Conquedle;
A livelier set were never led by taber, pipe or fiddle;
Crying, "Phew, shew, Wadolincon, see, see, Bobolincon,
Down among the tickle-tops, hiding in the buttercups!
I know the saucy chap, I see his shiny cap,
Bobbing in the clover there; see, see, see!"

Up flies Bobolincon, perching on an apple-tree,
Startled by his rival's song, quickened by his raillery.
Soon he spies the rogue afloat, curveting in the air,
And merrily he turns about and warns him to beware!
"'Tis you that would a wooing go, down among the rushes O!
But wait a week, till flowers are cherry; wait a week, and ere you marry,
Be sure of a house wherein to tarry!
Wadolink, Whiskodink, Tom Denny, wait, wait, wait."

Every one's a funny fellow; every one's a little mellow,
Follow, follow, follow, o'er the hill and in the hollow!
Merrily, merrily, there they hie; now they rise and now they fly;
They cross and turn, and in and out, and down in the middle and wheel about,
With a "Phew, shew, Wadolincon! listen to me, Bobolincon!
Happy's the wooing that's speedily doing, that's speedily doing,
That's merry and over, with the bloom of the clover!
Bobolincon, Wadolincon, Winterseeble, follow, follow me!"

O, what a happy life they lead, over the hill and in the mead!
How they sing, and how they play! See, they fly, away, away!
Now they gambol o'er the clearing; off again and then appearing;
Poised aloft on quivering wing, now they soar and now they sing:
"O let us be merry and moving! O let us be happy and loving;
For when the mid-summer has come, and the grain has ripened its ear,
The haymakers scatter our young, and we mourn for the rest of the year!
Then Bobolincon, Wadolincon, Winterseeble, haste, haste,

For the New England Farmer.

AGOING TOO FAST.

Who is agoing too fast? Why, that hair-brained fellow, driving that carriage, and in danger of upsetting the carriage, killing himself and two girls he has with him, beside spoiling horse and carriage. This crazy fellow is not the only one who is in danger from fast driving. "Agoing too fast" is an epidemic of the age; farmers, mechanics, and those of many other occupations, are in danger, as well as that go-ahead, enterprising driver of the carriage. Though farmers are in less danger of fast driving than traders, speculators and manufacturers, yet, occasionally, we see one driving a little too fast. Peleg Go-ahead had a farm left to him by his grandfather, containing about 250 acres of intervale and other respectable land. Before his grandfather died he had been a clerk in a grocery store. Soon after he came in possession of this valuable farm he said he did not intend to plod along just as his grandfather had done, who only left fifteen or twenty thousand dollars, "but it was in him, and he meant to do something." So he commenced operations early in the spring by hiring all hands that offered their services, without much scruple about wages; and with this motley gang of colors and dialects he went ahead, driving business, plowing and sowing, reaping and mowing, to the end of the first year. Being somewhat in the habit of book-keeping, he found himself rather in the rear after paying off his hands and taxes, but determined to make it up by doing more business. The next year he made a more vigorous effort, hired more help at high wages, and astonished his neighbors to see what a business man could do. Without going into many particulars how he enjoyed himself with his span of dapple greys in riding out with his young wife, and how his variety help spent their time when he was away, be it enough to state that at the end of the third year, instead of imitating his plodding grandfather, the spirit of his grandfather had the spectacle of seeing his farm struck off under the hammer to the highest bidder for the accommodation of Peter's creditors.

Describing solitary cases of fast driving would give but a feeble view of the reality. Fast drivers may more consistently be classed in groups to represent facts. In one of our large manufacturing villages the lives of men and property wasted in hurried speculations would compare with the destruction caused by war; hundreds of men were made paupers, and not a few of them died of consumption, broken hearts and brain fevers. I do not state these remarks without some personal knowledge of the facts. That insane desire to gain property fast has been the destruction of a vast many of our enterprising business men, and has been the cause of stagnation in business and dull times, little inferior to the calamity of war; instead of getting rich they make themselves and others poor.

SILAS BROWN.

MINKS AS INSECT-CATCHERS.—A correspondent of the *Rural New-Yorker*, who seems to make a business of raising minks for their fur, relates the following in regard to their catching grasshoppers and bee-moths: Two years ago last May, I caught seven young minks. I made a pen of boards near my bees, twelve feet square, and put them in it. About the first of July, grasshoppers would occasionally sail in, and they would jump and catch them very quick. It soon became sport for boys to catch grasshoppers and throw them on the side of the pen, to see the minks jump and catch them. Hearing the same jumping at night, I went out to see what was going on, and I found they were catching millers. The millers were so thick about my bees, that I could catch about thirty or forty a night in a pan of buttermilk, and now I have no millers about my bees. My minks cannot climb a rough board fence four feet high. They have young once a year—from five to eleven—and before I take off their pelts, I keep them in the dark for about one month, to make them darker than the wild ones.

CULTIVATION OF CLOVER FOR FODDER.

Farmers who have kept, and themselves fed, a variety of stock, sheep, horses, oxen and cows, both dry and in milk, are pretty much of one opinion, we believe, as to the value of clover hay for such stock, viz:—*that when it is well grown and properly secured, it is more valuable than any other hay.* Such, certainly, is our opinion, after having fed it extensively, and particularly to sheep. In a recent conversation with Mr. JOHN DAY, of Boxford, who cuts large quantities of clover, he stated that he feeds most of his clover hay to cows giving milk, and he has noticed that when the clover is exhausted, and herdsgrass and red-top are supplied, twenty cows immediately shrink two cans of milk per day! We have heard similar statements from other observing farmers. If, then, clover hay is so excellent for producing milk, it must also be good for making flesh, and especially excellent in promoting the growth of young stock.

Our object in this writing is to learn the opinions of brother farmers,

1. As to the best kind of clover for New England farms?
2. What is the best mode of producing it?
3. How should it be cured and packed away?
4. Is there any way in which a fair crop can be taken, annually, from land devoted to orcharding?

These questions are asked, in the hope that many of our intelligent correspondents will reply to them in articles for publication, as many persons are desirous to engage more extensively than they have ever done, in the cultivation of clover.

The question as to the best manner of cultivating orchards, is a perplexing one. All the processes, the plowing, furrowing, cultivating, and removing the crops, are dangerous ones to the trees, and the expense of the labor is materially increased by the impediments which the trees offer. If there is any way in which a crop of clover could be taken off annually without frequent plowing,

it seems to us that with a top-dressing of compost each year, in the autumn, or, perhaps, once in two years, the trees would be abundantly sustained by the aid of the dressing and that drawn from the constantly decaying roots of the clover plants. Can it be done?

Under such a course could not the specific manures, such as plaster, guano and superphosphate of lime, be used more advantageously, even, than on our corn and potato crops? Clover plants do not sward over and bind the surface of the soil as do herdsgrass, red top, and some other grasses,—and, therefore, the action of the atmosphere and the rains would be much quicker upon the soil than it is where these grasses prevail—and this would be favorable to the trees. We hope to hear from those who have had experience in these matters, or who will offer opinions upon them.

For the New England Farmer.

A WONDERFUL DISCOVERY.

This is an age of discovery, invention, and I believe, of progress. In almost every department of knowledge, science, and art, discoveries of vast importance have been made, which were never dreamed of in the philosophy of the ancients. Scarcely a daily public journal is issued which does not contain news of a sudden and remarkable addition to the stock of human knowledge; or, that somebody has done, or is going to do, some astonishing thing. But the reader, if he "takes the papers," knows all this and a great deal more, hence a longer prelude is unnecessary. I will come at once to the point, and tell him something which he (possibly) does not know.

A very important discovery has recently been made in the realm of science—the science of law, or jurisprudence. What can it be? says one. Have they discovered that *might* is *right*, or that law and justice should *not* go hand in hand? The following facts will show that this guessing comes very near the truth.

A few months ago, the *savans*, or rather the officials of the Fitchburg Railroad Co., discovered that the corporation were not obliged by law to build, or keep in repair fences on the line of their railroad; or to pay damages for killing a stray animal of any kind; and, furthermore, that whoever is unfortunate enough to have a horse, ox, or cow slaughtered upon their track, is liable to a fine of twenty dollars; and if, by the collision, the train is thrown from the track and smashed up generally, the owner of the animal which caused the obstruction, must pay all the damages to cars and wounded passengers, even if it takes the whole of his property to foot the bill!

The company have taken this stand not because there is an express law which exempts them from building, repairing fences, and paying damages, but upon the ground that there is an *absence* of any law compeling them thus to do.

There is a section in the statutes of Massachusetts which says that all companies which have built railroads *since* the year 1846, shall build and keep in repair lawful fences upon both sides of the track and pay to the owners the full value of cattle which have broken through the fence and been injured or killed.

As the Fitchburg railroad was built previous to that year, the company have decided that they are exempt from the law, and in accordance with this decision have issued circulars to the landholders upon the line of their railroad, to the above effect. A friend of mine who owns land upon this road, recently had a valuable cow killed upon the track in consequence of a defect in the fence. He went to the president of the road expecting to receive the value of the animal, but was told, that as the company had adopted this new measure, he could not make up the loss. He went to an able lawyer, but was advised not to prosecute the company, for the law was against him. So the matter stands. Why this sharp-sighted and *over-bearing* company did not make this discovery sooner, and apply it to practice, is one of the wonders of the age. When the land was purchased for the construction of the road, the owners sold it to the company with the express understanding that the company should build and maintain the fences, pay damages, &c.; but a very few wise old heads ferring there might be a loophole of escape, had an express provision, with regard to the fences, made in the deeds which they gave.

This provision, the knowing ones say, cannot be dodged. I do not believe that there is a jury of fair-minded impartial men in the State who would sustain the Fitchburg company or any other, in the course they have taken. It is not only mean, but wicked and abominable. It is hoped that a united effort will be made during the sitting of the next Legislature, to have the law, which obliges railroad companies that have been formed, or have built railroads since 1846, to build and keep in repair fences, &c., so modified as to include *all* rail-roads built previous to that time.

South Groton, June, 1862. S. L. White.

P. S. Since writing the above, I have been informed that the charters of the railroad companies which were formed previous to the year 1846, exempt the companies from building and maintaining fences; and that these charters cannot be altered. If this is the fact, it may be that the *goodness* of the Fitchburg Railroad Co., and not their ignorance, has caused them to fence their road, and pay damages. "Praise to whom praise is due." S. L. W.

Stoddard's Horse Rake.—We are daily receiving inquiries by letter and otherwise, to learn where this rake can be obtained. In a letter from Mr. Stoddard, the inventor, dated June 18, he says that "Messrs. J. W. Green & Co., of New Braintree, Mass., are manufacturing it and have the control of it for the present."

It is on sale by Messrs. Parker, Gannett & Osgood, 47 Blackstone Street, Boston.

Cribbing Horses.—Hitch the horse in the middle of the floor, and high up, so that he cannot bite any thing, till he forgets this habit, which will not require many days to accomplish. He should be fed from a basket hung on his head during the time.—*Rural New-Yorker.*

THE AGE OF OUR EARTH.

We extract the following from Agassiz's article on "Methods of Study in Natural History," in the May number of the *Atlantic Monthly:*

Among the astounding discoveries of modern science, is that of the immense periods which have passed in the gradual formation of our earth. So vast were the cycles of time preceding even the appearance of man on the surface of our globe, that our own period seems as yesterday when compared with the epochs that have gone before it. Had we only the evidence of the deposits of rocks heaped above each other in regular strata, by the slow accumulation of materials, they alone would convince us of the long and slow maturing of God's work on the earth, but when we add to these the successive populations of whose life this world has been the theatre, and whose remains are hidden in the rocks into which the mud or sand, or soil of whatever kind on which they lived, has hardened in the course of time—or the enormous chains of mountains whose upheaval divided these periods of quiet accumulation by great convulsions—or the changes of a different nature in the configuration of our globe, as the sinking of lands beneath the ocean, or the gradual rising of continents and islands above it—or the wearing of great river beds, or the filling of extensive water basins, till marshes first, and then dry land succeeded to inland seas—of the slow growth of coral reefs, those wonderful sea-walls raised by the little ocean-architects whose own bodies furnish both the building stones and the cement that binds them together, and who have worked so busily during the long centuries, that there are extensive countries, mountain chains, islands, and long lines of coast consisting solely of their remains—or the countless forests that must have grown up, flourished, died and decayed to fill the storehouses of coal that feed the fires of the human race to-day—if we consider all these records of the past, the intellect fails to grasp a chronology for which our experience furnishes no data, and the time that lies behind us, seems as much an eternity to our conception as the future that stretches indefinitely before us.

PLEASANT NEIGHBORS.

One's pleasure, after all, is much affected by the quality of one's neighbor, even though one may not be on speaking terms with them. A pleasant, bright face at the window is surely better than a discontented, cross one; and a house that has the air of being inhabited is preferable to closed shutters and unsocial blinds, excluding every ray of sunlight and sympathy. We like to see glancing, cheerful lights through the windows of a cold night, or watch them, as evening deepens, gradually creep from the parlor to the upper stories of the houses near us. We like to watch the little children go in and out the door, to play or go to school. We like to see a white-robed baby dancing up and down at the window, in its mother's arms, or the father reading his newspaper there at evening, or any of those cheerful impromptu home glimpses, which, though we are no Paul Pry, we will assert make a pleasant neighborhood to those who live for comfort instead of show. Sad, indeed, some morning on waking, it is to see the blinds down and the shutters closed, and know that death's angel, while it spared our threshold, has crossed that of our cheerful neighbor—sad to miss the white-robed baby from the window, and see the little coffin at nightfall borne into the house—sad to see innocent little faces pressed at eventide against the window-pane, watching for the "dear papa" who has gone to his long home.

For the New England Farmer.

SALT FOR ROSES.

Being in the vicinity of the United Society of Shakers, at New Lebanon, N. Y., a few days since, I called, as is my custom, to see their fine gardens, learn something new, and enjoy an hour of agreeable chat with my friends there.

In the garden, cultivated by George Curtis, I discovered a large plot of roses just bursting into beauty and fragrance. The leaves upon these bushes were as fresh and as fair as though they had been spread in Eden, before any insects had been sent to blight the beautiful of our world. As the rose bush pest was then in the midst of its harvest in other gardens, I inquired of my friend Curtis how he escaped their visit. By giving the ground salt, he replied, and that since he has done it, he has not been visited by the pest. This salt he sows among the bushes in early spring, and the probability is that it destroys the egg of the insect while in the ground.

He obtains refuse salt for garden purposes, such as for roses, asparagus, &c., and deals it out liberally. Its application, however, should not come so near to pears or apple trees as to affect them.

Friend Curtis is very nice in all his garden operations, and among other things, he is experimenting carefully and liberally with the grape, several new varieties of which he has now in a state of flattering progress. His favorite seedling has now been in bearing some four years, and each year gives new testimony in favor of its excellent qualities. Last year, although it suffered much from a late frost, it was ripe September 20. The vine is a very heavy bearer. He is slow in commending it to the public, choosing thoroughly to test it on his own grounds before he submits it to the animadversion of critics, or the scandal of grape-mongers. He has other seedlings that promise well, whose further developments he is anxiously watching.

In this garden stands the original vine of the "Northern Muscadine," that has survived so much censure, and is now gradually gaining favor in the good graces of amateurs;—a beautiful vine, whose bruising has only added to the fragrance of its fruit and reputation.

Throughout this society I find abundant efforts making in grape culture, and a success attending them, which shows that we of the North, by a little labor, may sit under our own vines and eat the fruit thereof. Patient labor and unshaken perseverance with them, have, to a good extent, overcome the severity of our climate, and they are n the year.y receipt of liberal reward.

STRAWBERRIES.

Friend Curtis showed me a bed of strawberries two years from the seed. A very curious appearance this strawberry bed presented. Leaves and

fruit, of all sorts and sizes. I saw several stems with fruit well worth cultivating, and from one root he handed me, fruit which was famous in size, and possessed in an eminent degree the peculiar flavor and richness of the field or native fruit. He has also a plantation of the Peabody, which were cultivated in hills, and were well laden with noble fruit.

THE SCHOOL-ROOM.

An invitation was proffered to visit the school, at this season kept for the benefit of the younger sisters in the community, but time would not allow me to indulge in this pleasure. I hope at a future time to do so, as I am of the opinion, from the general intelligence and noble deportment of George's boys, that progressive education with them is a fixed fact. They have introduced Harper's series of readers, by Willson, into their school, which is evidence that they know what the best is, and mean to make it available. W. BACON.

Richmond, June 24, 1862.

THE HAYFIELD.

What man amongst us all, if he will think the matter over calmly and fairly, can honestly say that there is any one spot on the earth's surface in which he has enjoyed so much real, wholesome, happy life as in a hayfield? He may have won renown on horseback or on foot at the sports and pastimes in which Englishmen glory; he may have shaken off all rivals, time after time, across the vales of Aylesbury, or of Berks, or any other of our famous hunting counties; he may have stalked the oldest and shyest buck in Scotch forest, and killed the biggest salmon of the year in the Tweed, and trout in the Thames; he may have made topping averages in first-rate matches of cricket; or have made long and perilous marches, dear to memory, over boggy moor, or mountain or glacier; he may have successfully attended many breakfast-parties within drive of May Fair, on velvet lawns, surrounded by all the fairy land of pomp and beauty and luxury which London can pour out; he may have shone at private theatricals and at-homes, his voice may have sounded over hushed audiences at St. Stephen's or in the law courts; or he may have had good times in any other scenes of pleasure or triumph open to Englishmen; but I much doubt whether, on putting his recollections fairly and quietly together, he would not say at last that the fresh-mown hayfield is the place where he has spent the most hours which he would like to live over again, the fewest which he would wish to forget.

As children, we stumble about the new-mown hay, revelling in the many colors of the prostrate grass and wild flowers, and in the power of tumbling where we please without hurting ourselves; as small boys, we pelt one another, and the village schoolgirls, and our nursemaids, and young-lady cousins, with the hay, till, hot and weary, we retire to tea or syllabub beneath the shade of some great oak or elm standing up like a monarch of the fair pasture; or, following the mowers, we rush with eagerness on the treasures disclosed by the scythe stroke—the nest of the unhappy late-laying titlark, or careless fieldmouse; as big boys, we toil ambitiously with the spare forks and rakes, or climb into the wagons and receive with open arms the delicious load as it is pitched up from below, and rises higher and higher as we pass along the long lines of haycocks; a year or two later, we are strolling there with our first sweethearts, our souls and tongues loaded with sweet thoughts and soft speeches; we take a turn with the scythe as the bronzed mowers lie in the shade for their short rest, and willingly pay our footing for the feat. Again, we come back with book in pocket, and our children tumbling about as we did before them; now romping with them, and smothering them with the sweet-smelling load—now musing and reading and dozing away the delicious summer evenings. And so shall we not come back to the end, enjoying as grandfather the love-making and the rompings of younger generations yet?

Were any of us ever really disappointed or melancholy in a hayfield? Did we ever lie fairly back on a haycock and look up into the blue sky, and listen to the merry sounds, the whetting of scythes and the laughing prattle of women and children, and think evil thoughts of the world or our brethren? Not we! or, if we have so done, we ought to be ashamed of ourselves, and deserve never to be out of town again during hay harvest.

There is something in the sights and sounds of a hayfield which seems to touch the same chord in one as Lowell's lines in the "Lay of Sir Launfal," which ends—

> "For a cup and bells our lives we pay;
> We wear our lives with tolling and tasking;
> It is only Heaven that is given away;
> It is only God may be had for the asking.
> There is no price set on the lavish summer,
> And June may be had by the poorest comer."

But the philosophy of the hayfield remains to be written. Let us hope that whoever takes the subject in hand will not dissipate all its sweetness in the process of the inquiry wherein the charm lies. —*Tom Brown at Oxford.*

SULPHUR FOR MILDEW.—Sulphur is a cure for most forms of fungus or mildew, if applied in time. The cracking of the pear is undoubtedly caused by a fungus, and I have great hopes that it will check this great drawback to the culture of the Virgalieu pear. The difficulty is to apply it so that the fruit shall be dusted over with the sulphur. Syringing the trees with a solution of sulphur is probably the best method. By boiling for some time lime and excess of sulphur together in water, we get penta sulphuret of calcium—a compound containing about eighty per cent. of sulphur. If this is largely diluted with water, and the trees are syringed with it, as the water evaporates the sulphur will be left on the leaves and fruit. I have great faith in this plan, and mean to try it thoroughly. I boiled eight pounds of sulphur and one of lime for several hours. I then poured off the clear liquid and added another pound of lime to the sulphur left at the bottom and boiled again.—*Genesee Farmer.*

MULCH THE TOMATOES.—The *Gardener's Monthly* says:—"Tomatoes do best when suffered to grow flat on the ground; but in such cases the soil should be covered with a mulch of straw or litter to keep the tomatoes from getting soiled and rotten by dampness. Brushwood is an excellent materal for them to lie on and they seem to thrive well with it about them."

For the New England Farmer.

NOTES FROM THE MONOMACK.

BY SAGGAHEW.

HINTS FOR NURSERYMEN.—It is quite common among nurserymen, in cases where they receive orders for any variety of tree, shrub or plant they happen to be out of, to "substitute" some kind that they have. If, for instance, a customer orders the Doyenne d'Ete and Easter Beurre pear trees, they send him the Brandywine and the Epine Dumas. (This was actually done the last spring by one of our most distinguished and "reliable" nurserymen.) Now is there a single *honest* reason for so doing? We think not. It is not a good *excuse*, even, to say that they send the customer "something as near as they can" to the article ordered, unless the customer expressly allows them that liberty. In the case above mentioned, customers wanted those particular kinds, and no others, and it was a perplexity, and a pecuniary loss to the agent through whom the order was sent. The latter did not recognize any obligation, either express or implied, on the part of the customers, to take what they did not order and did not want, and he was obliged to sell the surplus as best he could, and re-order of another party. What would be thought of the merchant who should venture to adopt such a practice in his business? We think he would soon find it "a hard road to trabbel," and deservedly so. If all customers hold the opinions of the writer, those nurserymen who continue this bad practice will in time find a falling off in their annual orders.

There is also need of a revision in the prices which some of our nurserymen charge their customers for *packing* goods ordered. We admit that, in most cases, a charge should be made, but we can think of no good reason why a customer should be asked to pay more than a fair price for the material used, and the labor spent in doing it. At prices in several cases charged the writer, any common laborer, with a little practice, could easily earn $20 per day in packing, after allowing fair prices for all materials used. A customer ought not to be charged for taking up and collecting the articles ordered, because the catalogue price, or price agreed upon, covers this, by common consent. If the nursery happens to cover a large extent of territory, or is cut up into lots more or less distant from each other, it is no fault of the customer, and he will be justified if he declines to pay for such disadvantages under the plea of "charges for packing."

CUTTING BACK NEWLY TRANSPLANTED TREES AND VINES.—It not unfrequently happens that a tree, or vine, does not start well after it is set out. It even refuses to start at all, and begins to "die down" from the extremities, towards the roots. If let alone, it will probably be entirely dead before the summer is over. Sometimes a tree starts quite feebly, and it seems doubtful if it will muster vitality enough to keep it alive. In these cases, also, if let alone, the chances are that death will be the result. A large majority of such trees can be saved, by simply cutting them back. The writer has saved several such the present season. In some cases, a severe shortening-in of all the branches was sufficient, in others it was found necessary to cut the whole tree back nearly to the ground. By so doing, the remaining vitality is allowed to expend its whole force upon a few buds, which push with vigor, and soon sufficient foliage is secured to save the tree. Where a tree starts at first, but afterwards falters, or where it fails to develop foliage and yet the limbs appear to be quite fresh, a severe cutting back will in most cases be successful, even if performed as late as July or August. This is particularly the case with pear trees and grape vines.

KILLING RATS---A NOVEL TRAP.

The premises of a good many farmers are often infested with rats, and we are often asked for modes of destruction. A resident of Brooklyn is vexed with an increasing family of rats that seem to grow fat on arsenic and rat-exterminators. He doesn't like rats, and refers his case to the *Sunday Times*. That journal recommends a trap made as follows:

"Take a mackerel barrel, for instance, and fill it to about one-third its height with water. Then place a log endwise in the water, so that one end of it will just remain above the surface. Make the head of the barrel a little too small to fit, and suspend it by two pins to the inside of the top of the barrel, so it will hang as if on a pivot and easily tip by touching either side. On this head, thus suspened, secure a piece of savory meat. The first rat that scents it, will, to get the meat, leap on the barrel head. The head will tip, or tilt, and precipitate him into the water, and resume its former position. The rat in the water will swim to the log, get on the end of it, and squeal vociferously. His cries will bring other rats, all of whom will be tilted into the water, and all of whom will fight for the only dry spot in it—viz., the end of the log. As only one rat can hold it, the victor will drown all the rest, and can, in the morning be drowned himself. We have seen twenty rats caught in one night by such a trick.

DISINFECTING AGENTS.

Now that the warm weather is upon us, our citizens should thoroughly cleanse their premises, rendering them as pure and healthy as possible. We are convinced that a great portion of the disease so prevalent during the hot months in summer, is attributable to the accumulation of filth in alleys and yards. There are a number of disinfecting agents which will be found efficacious in removing offensive smells from damp, mouldy cellars, yards, pools of stagnant water, decaying vegetable matter, &c. Either of the following will answer the purpose, while they cost but a trifle:

1. One pint of the liquor of chloride of zinc, in one pailful of water, and one pound of chloride of lime in another pailful of water. This is perhaps the most effective of anything that can be used, and when thrown upon decayed vegetable matter of any description, will effectually destroy all offensive odors.

2. Three or four pounds of sulphate of iron (copperas) dissolved in a pailful of water will, in many cases, be sufficient to remove all offensive odors.

3. Chloride of lime is better to scatter about in damp places, in yards and damp cellars, and upon heaps of filth.—*Scientific American.*

LOSS OF MANURE---FILTRATIONS.

A correspondent who has read with great attention and interest our articles on Improvement in Farming, asks, "If the soil is well pulverized to the depth of two feet, so that water can pass freely through, and below this there are drains ready to carry off all the water not held by the soil, will not the soluble parts of the manure applied near the surface, and the soluble and the richest portions of the soil, be carried off by these drains and lost to the farmer and the crops?" This is a very natural and sensible inquiry, and shows that the inquirer is one of those thinking men who is not willing to adopt any plan without a full understanding of its effects. On this point, however, there is no danger, for the water running from pipes will be found clear and pure, no matter how much or what may be the nature of the manure applied. Even liquid manure may be given in large quantities, and the water that filters through will be found clear and pure. Soak the soil with the dark brown drainings of the barn-yard, and that which passes through to the drains will be as clear as though just taken from the spring. Any one can test this matter for himself in a small way, so that the question may be settled in his own mind beyond question.

Among a series of experiments instituted by Professor Way and H. S. Thompson, for the purpose of ascertaining the power of soil to retain, unimpaired in value, manures applied in winter, and also its power to hold *in suspension* the fixed ammonia in barn-yard tanks and manure heaps, we learn that Mr. Thompson filtered through sandy loam, six inches in depth, ten grains of sulphate of ammonia and ten grains of sesqui-carbonate of ammonia, both dissolved in distilled water—the one representing the ammoniacal matter of the tank fixed by gypsum or sulphuric acid, and the other the free ammoniacal solutions of the decomposed vegetable-matter of the barn-yard—and he found that after passing through this thin stratum of soil, only 2.4 grains of the sulphate of ammonia resulted in the one case, and only 1.3 grains in the other. When an *eight-inch stratum of the soil was used, the whole of the ammonia was retained.*

Professor Way subjected stinking tank water to filtration through twenty-four inches of a light loam, and the moisture at the foot of the tube was perfectly free from smell, and a mixture of this soil and white sand allowed the percolation of water through it quite clear and free from ammonia. With the drainage of a London sewer, Professor W. found that the ammonia is separated from the rest of the organic matter to the last fraction; the phosphoric acid is separated from its base, and so is part of the sulphuric acid and all the potash; so that in fact *the soil had selected and retained* those very principles of the sewer water which science has decided to be the most valuable for the purposes of manure.

Professor Mapes, in an article on this subject, says—"It is impossible for manures in a fluid form to filter downward through any fertile soil. Even the brown liquor of the barn-yard will have all its available constituents abstracted by the soil, before it descends into the earth thirty-four inches. If this were not true, our wells would long since have become useless, the earth's surface would have become barren, and the raw materials of which plants are made, which come from the earth's surface and surrounding atmosphere, would have passed towards the earth's centre; but the carbon and alumina of the soil, each of which has the power of absorbing and retaining the necessary food of plants, are agents for carrying into effect the laws of nature for the protection of vegetable growth."

It is only in the most porous soils, containing a good deal of gravel, that the manure will be washed down out of the reach of the roots of plants, and we venture the assertion that in no fertile, and in fact in no soil that the farmer is expected to cultivate, may loss be apprehended from this cause.

MANUFACTURE OF CARPETS.

Within a comparatively few years past, several improved kinds of carpet fabrics have been manufactured and come into extensive use. Among these is the well known tapestry, which has been brought to great perfection. The peculiarity of this fabric is the unlimited number of shades or colors that can be introduced so, that the most elaborately-colored designs, with flowers and scrolls, can be executed. The saving of worsted is also very important in an economical point of view. The appearance is the same, or similar, to Brussels carpet, but the manufacture is more simple, each thread being colored separately at spaces, with the various shades, as they follow each other in the design. The process by which this is accomplished is beautifully simple and ingenious, but requires much care in placing and arranging the threads and putting them on the beam, or the work will be imperfect. The patent Axminster is another kind—the design of this manufacture being to give the beautiful appearance of Axminster, or Tournay, at less cost. It has been very successfully and extensively applied to the manufacture of rugs, as well as carpets. Another description of carpets, having the same appearance of Brussels, or tapestry, is also now much in use. This kind is woven plain by steam power, and is afterward printed by the same agency.

How to Clarify Quills.—Cut off the small top of the quill, tie them *loosely* in bundles, fix them nearly upright in a sauce-pan of water, in which a small piece of alum has been dissolved—about the size of a walnut of alum, to a quart of water; let them boil slowly, until they become clear; add a little tumeric, or a small pinch of saffron to the water, to give them the yellow color; dry them in the sun. You should tie paper round the feather part of the quills, to keep them from dust. You can increase the quantity of alum, according as you wish the quills more or less brittle. —*Irish Farmer's Gazette.*

Wheat in Ohio.—The editor of the Springfield Ohio *Daily News*, who has been taking "fine carriage rides into the interior," says, "the soil is mostly a stiff, cold clay, but we *never saw* wheat look stouter and more thrifty. The stalks can hardly hold the weight of the grain in the heads. All other crops are also promising, and of fruit there will be an enormous supply."

"AT THE LAST."

This beautiful poetry appeared, originally, in the *Independent*, written upon the passage, "Man goeth forth unto his work, and to his labor, until the evening."

The stream is calmest when it nears the tide,
And flowers are sweetest at the eventide,
And birds most musical at the close of day,
And saints divinest when they pass away.

Morning is lovely, but a holier charm
Lies folded close in Evening's robe of balm;
And weary man must ever love her best,
For Morning calls to toil, but night to rest.

She comes from Heaven, and on her wings doth bear
A holy fragrance, like the breath of prayer;
Footsteps of angels follow in her trace,
To shut the weary eyes of Day in peace.

All things are hushed before her, as she throws
O'er earth and sky her mantle of repose:
There is a calm, a beauty, and a power
That Morning knows not, in the evening hour.

"Until the evening" we must weep and toil,
Plow life's stern furrow, dig the weedy soil,
Tread with sad feet our rough and thorny way,
And bear the heat and burden of the day.

O! when our sun is setting may we glide,
Like Summer evening, down the golden tide,
And leave behind us, as we pass away,
Sweet, starry twilight round our sleeping clay!

LAMPAS IN HORSES.

This is an *imaginary* disease, but one commonly believed in by grooms, and we are sorry to add, by a great many well informed persons. If a young horse refuses to eat, it is usually imputed to the *lampas*, which is said to be a swelling of the roof of the mouth back of the upper front teeth, to such a degree that the animal cannot chew its food. Then the awful remedy is presented, of burning the part with a red-hot iron! and in many instances the cruel suggestion is put in force with inhuman indifference and haste. This terrible torture is often inflicted without the slightest reference to the condition of the horse in other respects—to the manner in which he has been fed—what work he has been doing—or what exposure he has experienced. No effort is made to learn whether he has taken cold, and is feverish, has eaten or drank heartily immediately after a lively drive, or whether there are symptoms of colic, or some injury has taken place to the mouth or the jaws. No. It is *lampas*, and the red-hot iron must be applied—nothing else will do.

Truly, the lot of the horse is a hard one, and if we can do anything to alleviate it, to arouse men to a more merciful consideration of the noble animal, we shall certainly feel happier every time we see one.

Last week we noticed a new book upon the horse, by EDWARD MAYHEW, and expressed the opinion that it is the best work, probably, ever written upon the subject. Since that expression was made, we have given the book still more careful attention, and find abundant reasons for the belief then expressed. Below, we copy a portion of what the writer says in regard to the *imaginary* disease of lampas in horses.

That affection is supposed to consist of inflammation, which enlarges the bars of the palate and forces them to the level of or a little below the biting edges of the upper incisor teeth.

Would the groom take the trouble to examine the mouths of other young horses which "eat all before them," the "lampas" would be ascertained to be natural development; but the ignorant always act upon faith, and never proceed on inquiry. Young horses alone are supposed to be subject to "lampas;" young horses have not finished teething till the fifth year. Horses are "broken" during colthood; they are always placed in stables and forced to masticate dry, artificial food before all their teeth are cut; shedding the primary molars is especially painful; of course, during such a process, the animal endeavors to feed as little as possible. A refusal to eat is the groom's strongest proof that lampas is present. But, putting the teeth on one side, would it be surprising if a change of food and a total change of habit in a young creature were occasionally attended with temporary loss of appetite? Is "lampas" necessary to account for so very probable a consequence? The writer has often tried to explain this to stable servants; but the very ignorant are generally the very prejudiced. While the author has been talking, the groom has been smiling; looking most provokingly knowing, and every now and then shaking his head, as much as to say, "Ah, my lad, you can't gammon me!"

Young horses are taken from the field to the stable, from juicy grass to dry fodder, from natural exercise to constrained stagnation. Is it so very astonishing if, under such a total change of life, the digestion becomes sometimes deranged before the system is altogether adapted to its new situation? Is it matter for alarm should the appetite occasionally fail? But grooms, like most of their class, regard eating as the only proof of health. They have no confidence in abstinence; they cannot comprehend any loss of appetite; they love to see the "beards wagging," and reckon the state of body by the amount of provision consumed.

The prejudices of ignorance are subjects for pity: the slothfulness of the better educated merits reprobation. The groom always gets the master's sanction before he takes a horse to be cruelly tortured for an imaginary disease. Into the hands of the proprietor has a Higher Power intrusted the life of his creature; and surely there shall be demanded a strict account of his stewardship. It can be no excuse for permitting the living sensation to be abused, that a groom asked and the master willingly left his duties to another. Man has no business to collect breathing life about him and then to neglect it. Every human being who has a servant, a beast or a bird about his homestead, has no right to rest content with the assertions of his dependents. For every benefit he is bound to confer some kindness. His liberality should testify to his superority; but he obviously betrays his trust and abuses the blessings of Providence when he permits the welfare of the creatures dependent on him, to be controlled by any judgment but his own.

The author will not describe the mode of firing for lampas. It is sufficient here to inform the reader that the operation consists in burning away the groom's imaginary prominences upon the palate. The living and feeling substance within a sensitive and timid animal's mouth is actually consumed by fire. He, however, who plays with such tools as red-hot irons cannot say, "thus far shalt thou go." He loses all command when the fearful instrument touches the living flesh; the palate has been burnt away, and the admirable service performed by the bars, that of retaining the food during mastication, destroyed. The bone beneath the palate has been injured; much time and much money have been wasted to remedy the consequence of a needless barbarity, and, after all, the horse has been left a confirmed "wheezer." The animal's sense being confused, and its brain agitated by the agony, the lower jaw has closed spasmodically upon the red-hot iron; and the teeth have seized with the tenacity of madness upon the heated metal.

When the lampas is reported to you, refuse to sanction so terrible a remedy; order the horse a little rest, and cooling or soft food. In short, only pursue those measures which the employment of the farrier's cure would have rendered imperative, and, in far less time than the groom's proposition would have occupied, the horse will be quite well, and once more fit for service.

"NO MONEY ABOUT THE HOUSE."

There is probably no one class of citizens in our State so completely "flat broke," as it regards money, as are the "Cultivators of the Soil;" and yet they are at the same time the most "independent" and the most "wealthy."

A person unacquainted with the singular and unwise management of the great majority of farmers, would suppose they were all as poor as a "church-mouse;" and no doubt there are many that are *really* poor by reason of misfortunes, and some, also, (from a shiftless management,) deserve to be poor, because they abuse their blessings.

There are hundreds of farmers that are ever speaking of "hard times," "of low prices of grain," of the "ruin of the farmers," that there is "no money," etc.; and it is a notorious fact, *they do not have money*, but run in debt for every necessary of life, go miserably dressed, themselves and children in many cases wanting the comforts of life; the wife, even, never touching a dime of money, suffering for many needed and deserved comforts, and yet "No Money in the House!"

We have seen their daughters going barefoot; and yet with all these "signs of poverty," the same farmer would have 500, 1000, 1500, perhaps 2000 bags of wheat in the granary, "waiting a rise," while his family and himself wanted the comforts and necessaries of life. The wife, too, who has toiled all the season, often beyond her strength, hoping "harvest-time" would bring comfort and ease; alas! poor woman! the "Grain is not sold," and you and the storekeeper must wait, children go barefoot, the smile leaving your brow, and probably some creditor, tired of waiting, will, Shylock-like, strip the farm and homestead, and leave you all to the cold pity of an unfeeling world. And this because of that shiftless, miserable, wicked plan of holding on to the crop, which should always be sold to pay the debts incurred while maturing it.

If our farmers would adopt the *Cash System*, and buy and sell only for cash, they would find that in a little time joy would be in the household, and their own joy would prove to them that they had discovered Aladdin's Lamp.—*Exchange.*

EXTRACTS AND REPLIES.

MANNY'S MOWER.

A statement made by Horace Ware of Marblehead, of work done on his farm in the ordinary way, in the season of 1856, by *Manny's Mowing Machine.*

1856.—June	24,	1¼	acres,	2	hours,	3	tons per acre.
" "	30,	5	"	4½	"	2	"
" July	1,	8	"	7	"	1¼	"
" "	2,	8	"	7½	"	1	"
" "	7,	10	"	10	"	2 to 3	"
" "	8,	6	"	4½	"	1 to 2	"
" "	9,	6	"	4	"	2	"
" "	10,	4	"	3½	"	1 to 3	"
" "	14,	4½	"	1	"	1 to 3	"
" "	16,	5½	"	3	"	1 to 2	"
" "	18,	2	"	1½	"	1	"
" "	19,	5	"	4	"	2	"
" "	21,	10	"	9	"	1 to 2	"
" "	22,	7	"	7	"	1 to 2½	
" "	23,	5	"	4	"	½ to 2	"
" "	25,	1½	"	1½	"	½ to 2	"
" Sept.	15,	4	"	2½	"	½	"
Total,		93	acres.	76½	hours.		

Average of time, less than one hour to the acre.

H. Ware.

I find the foregoing data among my papers. I remember to have viewed the ground as one of a committee on mowing machines. I have entire confidence that it is correct. I think it goes to show very clearly the utility of such implements. There may be other machines, which will do better, but I have not seen them.

July 1, 1862. J. W. Proctor.

MUCK AND ASHES.

In the *Farmer* of May 21st some unknown friend makes some statements in regard to my farming. I think he must have misunderstood me in some things, for instance, I do *not* consider leached ashes worth much. In reply to W. J. Pettee, I would say that I have experimented with muck and ashes for more than twenty years. I have tried it in the same field with stable manure—half the field manured with six bushels of ashes (or 36 lbs. of potash) to a cord of muck, and the other half with stable manure, and all the crops were the best where the muck and ashes were applied. The muck was thrown out of the meadow in the autumn, and the ashes mixed with it about ten days before using. John Day.

Boxford, June 23, 1862.

THREE SPANISH MERINO BUCKS.

Messrs. C. C. Smith and J. G. Fitts, of Corinth, Vt., own three full blood Spanish Merino Bucks, which sheared as follows:—One two years old, *twenty-two* pounds; next, two years old, *eighteen* pounds, and the third, one year old *seventeen* pounds! Is not that a good Clip?

Remarks.—Yes. The Vermonters beat all creation in fine horses and great "clips" of wool.—There is no "great cry" and "little wool" in their affairs.

KICKING COWS.

I have noticed several receipts in your monthly for preventing cows from kicking, some of which may be good, but most of which are worthless, in my humble opinion. If a cow is of a quiet, gentle disposition, she will not kick if she is well used, unless she has sore tits, or the milker's nails are too long, or there is some other irritative cause for it. But if a cow, through a vicious disposition or constant bad treatment, once gets in the habit of kicking, there is but one *sure* remedy for it, and that is the trick the Yankee learned the Indian, viz: cut her tail off close behind her ears!

A. J. ALDRICH.

North Blackstone, June, 1862.

LARGE FLEECES.

I saw a fleece of wool from one sheep the other day that weighed 29¼ lbs. I have heard of one in Dorset, Vt., that weighed 33 lbs. I don't know as these figures are very uncommon, but it struck me they were.

There is a great drought here, and crops are nowhere. HENRY O. WILEY.

North Granville, N. Y., June, 1862.

For the New England Farmer.

THE GRASS CROPS.

It seems to be the opinion of the best experienced observers whom I have met, for the month past, that there will be a small crop of grass, the present season. They reason in this manner, that during the winter and early spring, there was much less rain than usual, that many spots were winter killed, as it is called, by the long continuance and close adherence of snow and ice to the surface. Although the fields have a green and vigorous aspect, it will be found that the grass started thin, and nothing has occurred, or is likely to occur, before the 4th of July to thicken it—when mowing is expected to begin. Combining these and other cosiderations, the farmer can only expect a limited reward for his labor, in these hard times.

Besides, it will be found that many of the smart boys, who would be better employed in handling the "shovel and the hoe," and in sharpening the scythe, are gone to the marshes about Richmond, and the swamps of Carolina, where, if they escape laying their bones to moulder and decay, they may be looked upon as lucky fellows. ESSEX.

June 24, 1862.

A GOOD WOOD FOR THE SKUNK.

The *American Agriculturist* takes up the cudgels in defence of the poor, despised, but seldom kicked skunk, and gives him a good notice. Our contemporary says:

All summer long he roams your pastures at night, picking up beetles and grubs, poking with his nose potato hills where many worms are at work. He is after the grubs, not the tubers. He takes possession of the apartments of the woodchuck, who has quartered himself and family upon your clover field or garden, and makes short work with all the domestic arrangements of that unmitigated nuisance. With this white-backed sentinel around, you can grow clover in peace, and the young turnips will flourish. Your beans will not be prematurely snapped, and your garden sauce will be safe from other vermin. The most careless observation of his habits shows that he lives almost exclusively upon insects. While you sleep he is busy doing your work, helping to destroy your enemies. In any fair account kept with him the balance must be struck in his favor. Thus among the animals we often find friends under the most unpromising appearances, and badly abused men are not unfrequently the benefactors of society.

For the New England Farmer.

CANKER WORMS---CROPS, &c.

MR. BROWN:—The canker worms have done great damage in the eastern part of this county, having, in many orchards, completely destroyed all of the foliage, and in such cases the apples have perished with the leaves. They appear to congregate in large orchards the most, scattering trees escaping mostly, or as a general thing. What is the best way to destroy or check them in their ravages for another year? They have not been in this town in any numbers for over forty years. One of our oldest citizens informs me that the 17th day of May, 1794, was a very cold day, and the night following was so cold that the ground froze quite hard. Previous to that it had been warm, and the trees had blossomed; the canker worms were then in full blast, destroying everything before them, but the cold and frost killed every one, and left no descendants, so that there were none here for years afterward.

I first observed them here on the 2d of June, many on the leaves, and others going up on the bodies and the large branches, from one-third to three-fourths of an inch in length. On the 4th of June I took an iron dish and put in one pound of brimstone, and set it on fire under one tree and smoked it completely. I could not kill them unless I held them *almost* into the "lake of fire" spoken of by John the Revelator. I call them fire-proof.

Grass looks about the same as last year; there will be about an average crop. In many places it was winter-killed. One large farmer suggested to me that it was owing to cutting the grass with machines—the driving wheel, and cutting-bar disturbing the roots and causing them to die. How is that, Brother Mowers?

Corn, potatoes and grain promise well thus far. With industry, hope and patience, the husbandman may expect a good reward for all his toil. Would it be profitable to keep a litter of sucking pigs with the sow till they would weigh 200 lbs. alive, and sell them at 6 cts. per lb., and feed them corn worth now 65 cts.?

In "altering" one a few days ago the intestines came out of the anus in length I should think four or five inches. We held the pig up by his hind legs, pressed them gently back, and with a needle and thread, (linen,) took seven or eight stitches through the skin; it is now doing well. Another case we had three or four years ago, which was somewhat different. We took an "entire hog" that would weigh about 125 lbs., which had but one testicle that we could find. That was taken out, and the butcher that had it said he would

run all risk of its being strong. Afterwards, he said that one-half of it was so bad that no one could eat it, and we had to lose it—about a dozen dollars. So much for not knowing what to do in the first place. In dressing it, we found the other testicle inside, lying close to the kidney, and of full size.

P. S. I would state that the canker worms "skedaddled" on the 14th and 15th inst., leaving, like the rebels, death and destruction behind them. WEARE N. SHAW.

Kensington, June, 1862.

For the New England Farmer.

ON FARM ENGINEERING.

BY ALBERT E. WOOD.

[Read before the Concord Farmers' Club, in January, 1862.]

An engineer in the military art,—where the word originated, I believe,—is a person skilled in mathematics and mechanics; one who forms plans of work, both of offence and defence, marking out the grounds for fortifications, &c. When this skill was afterwards applied to the delineating plans and superintending the construction of our public works, such as canals, railroads, &c., the title of civil engineer was given to it.

Now that the farmer is becoming alive to his interests, he, too, claims an engineer; he has enemies to battle with; he has works, both of offence and defence, to construct. He need not, however, very often, go outside of himself, for this engineering. No true farmer, with a mind alive to his business, but has it within himself, if he chooses to apply it. Man's ambition says, Let us erect this wilderness into a fruitful field; let us make upon it a fit habitation; and it is the engineer in the man that is called upon to do it.

A good location of our buildings, and their proper construction, are the first considerations requiring the engineer. In this latitude, we spend a considerable portion of our lives in these buildings. Everything we do is in some way connected with them; they are our outer bodies; the bodies to our bodies; by them our degree of civilization may be judged. Everything dear to us in life is connected with them; in a word, they are our homes. Youth, manhood, old age, are bound to them by ties as dear as life itself. A house is built for a lifetime. How important that we do not plan it hastily.

No rules can be given for location or construction by which all can be governed. I will give a few hints, however, that may generally apply.

A position as nearly central as possible should be chosen, that the land we work upon may be conveniently near; a healthy location, as far as possible from miasmatic swamps, yet not too high upon a hill; a convenience to water, where a good well can be dug; a running brook is, also, of great use to both house and barn, especially so in lime localities, where the well water is hard. Then the relative position of our buildings should not be lightly passed over, as it is a matter of great convenience to have the barn near enough to the house to be connected by a shed or other building. Yet I think there are considerations that are against this plan that more than balance this convenience. There is danger of greater loss in case of fire; our olfactories may sometimes be unpleasantly excited by too close connection; the barn and yard are nurseries for myriads of flies and mosquitoes, who soon find their way to the dining-room, and frequently take away the pleasures of a good dinner, by presenting bills! It is important that the sleeping-room of the one having charge of the barn should command a view of it, and be sufficiently near to hear the bellowing of the cattle in case of trouble.

There is another consideration, I think, often neglected; we are all, by nature, gifted with a love of the beautiful.

"A thing of beauty is a joy forever."

And what more beautiful to us than a fine landscape? This pleasure in life was given us as a blessing; let us consider it in the location of our buildings.

A second consideration is, the dividing our land into suitable lots to meet our several necessities. It is curious to look over the farms in almost any part of New England, and see what might be called the want of engineering. Our forefathers were straight-forward, stern, resolute, without shadow of turning, as men, and it is a little strange that they should have handed down to us their streets and fences in such a crooked and wavering condition. One might think they had a love for geometry, and had attempted to represent upon their farms every possible shape mentioned within the leaves of Euclid, and a good many other shapes that you might search Euclid in vain for. Look at the line of our fences, and you see not only the pot-hooks and trammels of our grandmothers, but every variety of deviation from a straight line represented.

The question arises in my mind, What is the need of all this irregularity? It is a fact beyond question, that a straight line is the shortest that can be drawn between two points; if a wall is to be built between two points, why not have it a straight one, and save labor? I can see but one reason why this should not be done, and that is, that the longer the wall is the more stones it will take to build it. This might be a sufficient inducement, to the farmers in some of our neighboring towns to take pot-hooks as patterns, but I think no member of the Concord Farmers' Club need adopt it, as a better use can be found for the surplus stones one may find upon his farm. The unevenness of the surface and the sinuosities of the streams may sometimes force us into these irregularities, but such are exceptions.

For economy in labor, not only should our lines be straight, but all the angles, right angles. Who that has ever plowed an irregularly shaped piece but has seen this? Take a triangular shaped piece, for instance; you commence by plowing around it, and everything goes on well for a time, but before you finish, instead of spending your time in plowing, you devote it to turning the team around; this holds comparatively true of any deviation from a rectangle.

But, I hear somebody say, it is too late for us to talk about these things; our farms are as they were handed down to us; the fences are already built; true, but we have a chance every year to improve them; the crooked walls can be made straight, when we relay them; and it will, in many cases, be a saving of labor, to change and improve the shape of our lots.

A third consideration, and one, perhaps, requiring a little engineering that the farmer may not be able to do himself, is the measurement of the land. If a man owns a farm, it is a gratification to know how many acres and rods it contains. This, alone, would, naturally enough, induce him to have it measured; but, it seems to me, there are other inducements besides this. Not only should it be measured, and a plan drawn of the whole, but each lot should be measured. Every farmer, before he commences his work in the spring, looks his farm over attentively, and decides which fields he will plow, and which lay down: to what particular kind of grain, grass or root crop each piece shall be devoted; how much manure he will apply, and how much seed. Before deciding these several things, judiciously, he must know the area of each lot.

In the late autumn, when he sits down and looks over the result of his summer's labor, how can he judge if his crops are up to the average, above it, or below, unless he can tell from how many acres a certain number of bushels of whatever it may be was taken?

No man having the interests of farming at heart but wishes to try experiments. It has been truly said, "It is only by experiments that progress in any branch of agriculture can be accomplished. Any one that accomplishes an experiment, and accurately reports it, advances the science and practice of agriculture." How can these experiments be accurately reported, or how can one judge of them himself, unless the land is carefully measured?

A fifth consideration requiring the engineer in the man, is in reclaiming lands—bringing them from a cold, barren state, into one of fertility.

Water is one of the great necessities of life, both in plants and animals; it goes to make up a large portion of either; yet the farmer often finds it in the way of his improvements. This matter has, of late, in this country, been brought a good deal to our notice; a great deal has been said and written upon the subject, yet few of us fully appreciate its importance.

It has been ascertained, by careful observation, that more water falls upon the surface of the ground during the year than is needed for the growth of plants; this, in lands where it cannot pass down through the subsoil, must be in some way removed by artificial means, or it will prove an injury to our crops.

Draining is a process in agriculture which, if well done, needs no repeating. It is the first step necessary in order to avail ourselves of improved modes of agriculture. We have a great deal of land—and the best we have, if properly drained—upon which the bestowal of any amount of labor and manure is useless unless it is first drained. We may plow deeply, and subsoil in vain, if the land is "water-logged;" the seeds will rot instead of germinating; the roots cannot penetrate to a sufficient depth to get nourishment or to sustain a drought. The land is sour and cold, and the grass that does manage to grow upon it is not at all palatable or nutritious to our stock, and in winter the land freezes much quicker and deeper.

Water is the only exception in nature, I believe, to the law that matter becomes more dense by cold and expands by heat. Water is most dense at about forty degrees above zero, and expands both ways from this point. If land is saturated with water in winter the water as it freezes expands and causes the ground to "heave." Small trees are often in this way thrown out of the ground, and many of our biennial and perennial crops injured, or entirely ruined, or "winter-killed" in this way. The land does not get suitably dry for cultivation till very late in the season, if at all, and thus our now too short season is rendered still shorter. Water passes from undrained lands almost entirely by evaporation. This is a refrigerative process, as any one can see by holding his wet hand in the wind. We often hear farmers speak of land as cold, and for this reason it is considered almost worthless. The land is cold, but not of itself. Place a man exposed to a stiff wind, with wet garments, and he will be cold; the heat of the sun is expended in evaporating the water, and in this way the heat becomes latent. Exchange the man's wet garments for dry ones, and he is comfortable; draw the water from cold lands and we warm them; the sun's rays will then penetrate them; the air circulate in them, and seeds will sprout and plants grow. Crops will start sooner, come forward more rapidly, be more fully developed and better matured. The roots can sink deeper, having a greater space to collect nourishment from, and are better protected from drought.

During the spring and early summer the roots are kept from going down by chilling contact with cold water. When drought comes on the water recedes, but it is then too late for the roots to follow it; they are confined to a narrow space upon the surface of the soil, and like the seed sown upon stony ground, they are soon scorched, and wither away.

Draining in another way prevents drought. In connection with proper cultivation the soil becomes more finely pulverized, and capillary attraction acts with most power in smallest spaces. A finely pulverized soil the better draws up the moisture, and the better holds a sufficient quantity to sustain plants through a severe drought.

If these statements are true, and I have sufficient proof that they are, how much there is in draining to call forth the engineering faculties and energies of the farmer. If by a little engineering he can make two spires of grass grow where one grew before, how richly is he rewarded.

It is admitted, I believe, upon all hands, that the most valuable land we have is the swamp or meadow land, that is so situated that it can be drained. Of the draining of these lands no one can entertain a doubt of the advantage derived. The only question that can arise, perhaps, is as to the depth of draining. I do not believe that swamps can be so deeply drained as to injure them, although it is unnecessary, perhaps, to carry the water line to more than three feet below the surface. I have no doubt that deep draining will render the top dry and springy for a time; but it will soon settle, and with the addition of a little sand or gravel it will soon become sufficiently solid for any crop. The soil of our swamps is made up mostly of partly decomposed vegetable matter, but not in a condition to be taken up by the roots of plants; when the water is removed, this becomes for a time spongy; but it soon settles, decomposition goes on more rapidly, and a fine, rich,

compact soil is the result; while saturated with water it can never decompose.

Besides being but slightly decomposed, the soil of our swamps contains an acid that must be removed before plants will thrive in it; this explains why lime and ashes are used with so much advantage upon such lands; they destroy the acidity, besides helping to decompose the mud. By removing the water both these results are attained, and to a much greater depth; decomposition commences at once, and by it the acid is destroyed.

If a farmer possess more land than he can cultivate well, and has irrigated meadows, it is often best to keep them as such, at least till he can find no other land as capable of being improved. Irrigated meadow lands are of great advantage to farmers when kept as such; they are as never failing springs, from which he can draw the wherewithal to keep the rest of his farm from wearing out. Hay can be taken from them, year after year, without impoverishing them. Let us see what keeps up this fertility. Let us see how it is that the farmer is able thus continually to draw from this bank without sometimes making a deposit.

There is a stream running through it made up by a number of smaller streams. During a heavy rain every acre of our upland is washed, more or less; the muddy water, laden with those things which make plants grow, finds its way down into the stream, and as the stream is high, and crooked and narrow in some places, winding from this side of the meadow to that, the water, hurrying along, is dashed out upon the meadows at every turn; in spreading out it becomes comparatively quiet, and here the mud and water part company; the mud settles upon the soil, while the water continues upon its journey to the ocean. In this way our meadows are kept fertile; and in fertilizing the upland they but pay a debt they owe to them.

In straightening these crooked streams, I think the farmer is sometimes guilty of a little too much engineering. Through the straight, wide ditch that Mr. Thrifty has engineered, the water rushes without turning to the right or left, and the next neighbor down stream gets the benefit of the deposit that would otherwise have been left upon his own meadow. If a farmer has not enough other land to cultivate, and wishes to dry his meadow, then straighten the stream, by all means, but not otherwise.

But the strongest defence an engineer can plan for the farmer must be built within himself, and by himself alone. The only sure protection against want, the true guaranty of success in farming, that which covers all that has been said upon the point, is, that the farmer enter into the business with energy. Not satisfied with plodding on in the old path, however good it may be, followed by his father and grandfather before him, without looking to the right or left for improvements; not satisfied with confining his literary pursuits to the reading of the farmer's almanac, or an old newspaper borrowed of a neighbor; not satisfied with half a crop, year after year, upon land that is capable of bearing a full one; he profits by the experience of others, as found in the numerous books and papers now published upon agriculture. He meets with other farmers at farmers' clubs, and in this way receives the benefit of the experiments accomplished in the various sections of country, or upon the different farms in the vicinity. These experiments may not be applicable to his land, but by considering them carefully, he acquires a knowledge of agriculture that cannot, in the end, fail to make farming with him a success.

A farmer's business is the cultivation of the soil, yet I see no reason why he may not also cultivate his mind. I see no reason why he may not spend his leisure time in study. No business offers better chances for the study of the natural sciences, and no one offers a richer reward than is offered to the farmer, if he study them and put the knowledge he thus attains into practice. The reason the farmer has discovered no new benefit from chemistry, is, that he has not studied it himself; he is satisfied with what is told him by some professor entirely ignorant of the practice of farming, and he generally finds his advice and directions entirely impracticable. Study and practice must go together in order to ensure success.

The time is not far distant, I believe, when this will be better seen and believed by the farmer than it now is, and agriculture become, in reality, what it now claims to be, a science.

May the Concord Farmers' Club take a bold lead in this direction.

A LOOK AT THE CITY HORSES.

Though not especially given to fast nags, we like horses, and always take pains to see them where they are collected in considerable numbers, in order to observe their treatment, ascertain their qualities, cost of keeping, and whatever else that appertains to them of an interesting nature.

With these views, we recently accepted an invitation from Col. Ezra Forristall, the indefatigable and accomplished *Superintendent of Health* for the city of Boston, to look at the city horses, and the stables in which they are kept. Our first call was at the stable on Grove Street. Some forty horses are kept here, and under a system that would command the admiration of any person, whether he knew the difference between a horse-stall and a hog-pen, or not. Every stall has its number, with a corresponding one for the horse which is to occupy it, and for the harness he wears. The building is of brick, is long and sufficiently wide to afford two rows of stalls the entire length, with a space some ten feet wide between the heads of the horses. The stalls are principally of iron, the feeding boxes entirely so, and everything about them is scrupulously clean. We were there at noon of a hot day, yet the horses suffered no annoyance from flies, and stood as quietly as in the midst of a winter day. Every part of the building is kept clean,—so that nothing is left to offend any sense. All the departments of the establishment, the rooms where harnesses are cleaned, where the street brooms are made, and where carts and carriages are washed,—presented the same neat and orderly appearance that the stable itself does.

The stables now occupied at the South End of the city, are old, low posted and inconvenient,—but even under these disadvantages, everything was in order and moved with the precision of clock-work. Just before leaving, we saw the men and teams turn out to their afternoon work, some fifty of each. In hitching up there was no confusion, no scolding, swearing, or loud talking, even, although some of the horses were quite young, and evidently undecided as to what course they ought to pursue amidst their trappings and the thunder of the rolling carts.

None of the horses weighed less, we should judge, than 1200 pounds, so on, to 1600! and are well-formed, sound animals, admirably fitted for slow movements and heavy draft. They are cleaned, fed and washed with great regularity, and soon become fat. They then each receive about seven quarts of grain, corn meal, and oats, or cracked corn, per day, wet with a little cut hay, and once a week, at noon, on Sunday, a small quantity of long hay. This keeps them in excellent condition at trifling cost, and under this treatment, they are able to perform a vast amount of labor. But they are never worked on a trot or beaten, or abused in any way. Col. Forristall's opinion is, that scolding and beating are always injurious; that all horses, if properly treated from the beginning, will labor kindly and faithfully, to the very extent of their ability. The lover of the horse can scarcely spend a more agreeable hour than to visit the stables of these noble and serviceable animals. They are among the pleasant objects in our streets, and always attract attention. Thanks to the City Fathers for furnishing them so kind a master. They are fortunate in securing the services of a gentleman of ability, and one who is prompt and decided in the discharge of his duties.

The city is now erecting new stables at the South End which, when finished, will undoubtedly, be the best ever constructed in the State, if not in the country.

WHITEWASHING SHINGLES.

Fresh or caustic lime, applied during the heat of summer, and after the wood has become thoroughly dried, enters the pores and tends strongly to prevent decay. We have recently examined a board fence, which had been whitewashed in successive coats about 18 years ago. The boards were hard and sound, and had not become covered with moss, as was the case with another fence near, built at the same time. There is no doubt that a great advantage would result from whitewashing shingles before laying them. We have, on a former occasion, given some instances of the durability thus imparted to them. A late number of the Boston *Cultivator* gives some additional examples. J. Mears, of South Abington, performed the experiment in substance as follows:—He procured a vat, (a lime vat or a tannery does well,) and applied salt with a small portion of potash to the lime, and immersed the shingles for four hours. The wash was afterwards brushed over the shingles when laid. This made a fire-proof roof on a blacksmith shop, now eleven years. Silas Brown, another correspondent, says that 25 years ago, he dipped shingles in a large kettle of lime wash to which salt had been added, and the whole kept boiling. A few shingles were dipped in all over at a time, long enough to soak them well, and then thrown aside to dry. In a short time all the shingles were thus prepared. Although what are termed "sap shingles," they have now lasted twenty-five years, and "may do so for years to come." Several experiments of a similar character have been made since, with very successful results.—*Country Gentleman.*

MANURES---PROFITS OF FARMING.

At the late Fair of the New York State Agricultural Society, meetings for discussion were held each evening, Hon. A. B. CONGER presiding. On Tuesday evening, the subject chosen for discussion was—

"How shall barn-yard manure be saved, and how applied? Shall it be kept under sheds? Shall it be piled? Shall it be applied raw or rotten? Shall it be put on the surface or plowed in? And is a different method of application required for different crops, and for pasture and meadow lands?"

GEORGE GEDDES, of Onondaga, President of the Society, who occupies a farm where grain is principally grown, and where straw is very abundant, gave the following directions, as the result of his observations on the subject: 1. The barn-yard should be made so that the manure would not run out of it. 2. Straw enough to absorb all the liquid. Then in spring, pile up the manure in heaps, with square sides and flat tops. If very strawy, the heaps should be high, and the tops somewhat hollow to hold the water, or they will not rot. If this is done in the spring, by July the piles will be in a condition to cut with a spade. The outsides will not decay, and they should be pared off and thrown on top. It is folly to put strawy manure under a shed. If it is three-fourths cow-dung, it might be advisable to put it under sheds. Sheep-manure under sheds will fire-fang. Pile it up early, and it will not fire-fang. The dairymen want it under sheds, but grain-growers do not. In regard to its application: Put it on either grass or wheat. Do not put it on corn directly; it produces weeds. Rot it thoroughly, draw it out on the wheat fallows and drag it in. Do not plow it in. Better on top than plowed in. Believes in top-dressing clover or grass. Get a good crop of clover, and you have laid the foundation for subsequent crops.

Hon. MOSES EAMES, an extensive dairyman, spoke of the benefit he had derived from the use of earth in his barn-yard, as an absorbent of liquid manure. A top-dressing of five loads per acre, of this saturated earth, applied in the fall, produced three tons of hay per acre.

WM. ANDREWS, of Connecticut, has not straw enough for litter. Wheels the manure into covered sheds, and in the spring applies it to corn.

Has a drain from his yard, and irrigates an excellent crop of grass.

Mr. PARKER, of Jefferson county, had never summered ten loads of manure. In December, January, February, and the first half of March, drew out the manure while fresh, and piled it up into a large heap. In April spread the manure and sowed wheat. Where the heap was, the wheat was too rank and blasted. This satisfied him that manure should not be piled. (We suppose Mr. P. is in favor of spreading it on the surface while green, as he remarked that his land is not hilly, and there was no danger of the manure being washed away.) When he had not straw enough to litter, he goes to the woods and gathers leaves. Puts muck, straw, leaves and horse-manure into the pig-pens, and the pigs make it a prime article for the garden and orchard and for the corn-field.

Mr. FAXTON, of Utica, alluded to the time when the farmers on the Mohawk used to make "bees" to clean out their premises, drawing their manure out on to the ice, so that when the river broke up it might be washed away, and thus save them any further trouble! Now, the farmers wisely took great pains to keep up the fertility of the soil.

S. WALRATH, of St. Lawrence county, said his biggest crop was manure. Does not believe in having foul seeds in manure. Cuts the hay and weeds before the weeds go to seed. Saves everything; draws muck, grass, weeds and refuse of all kinds into the barn-yard to rot. Applies his manure not to corn but to grass. Corn very clean, grass free from weeds, and both of much better quality.

On Wednesday evening, the subject for discussion was:

"DAIRY FARMS.—Is it advisable to cultivate dairy farms so as to secure fresh pastures, or are permanent pastures most profitable; and how can noxious weeds be excluded from pasture lands the most advantageously?"

Mr. WALWORTH, of Lewis county, thought that on some of the gravelly soils of the county the old pastures were best; but on the limestone soil like that in his section, breaking up the land once in eight years or so was a great improvement. Cows did not like the new seeded grass best. White daisies, yellow dock and moss are troublesome on the old pastures, and even on the new it is difficult to keep them down.

Mr. BROWN, of Lewis county, had a sixty acre pasture run over with briars. It kept about ten cows. He cut them, and subdued it by keeping sheep. The June grass came in and spread over it like a mat. It now keeps twenty-five to thirty cows. Thinks this better than if it had been broken up. Had sowed a little plaster on it. It is limestone soil.

Mr. MILLER, of Lewis, agreed with Mr. Walworth. Cows and horses will resort to the newly seeded land, and leave the original pastures.

Mr. WALWORTH—It is important to manure as well as plow.

Mr. LYON, of Lewis, said gravelly land required to be plowed oftener than the limestone lands. Cattle will leave timothy and clover, and go to the June grass brought in on the native pastures.

S. WALRATH, of St. Lawrence county.—The great point is to get land clean before seeding.

President GEDDES remarked that Mr. Walrath's farm was the cleanest and neatest he had ever seen. Not a square foot of weeds on the whole farm of fifty acres. If Mr. W. would come to Onondaga, they would send him to Congress.

SOLON ROBINSON.—That would be but a poor compensation.

Mr. WALRATH.—Land quite natural to white clover. Top-dressed his grass lands; cows did not like it for a few weeks, but after mowing prefer it to all others. Considered June grass a weed, and took as much pains to destroy it as any other weed. Cows prefer the new seeded land. Injurious to the new grass to feed it the first year.

E. L. HALSEY, of Cayuga, said permanent pastures gave a better quality of butter. Clover will carry more stock.

Mr. STANLEY, of Lewis county, has pastures sixteen years old, that produce better than lands seeded three years ago. Cows prefer the old pastures in the spring. The grass starts quicker.

Mr. LYON, of Lewis county, had two pastures —one which had been down three years, and one seven years. The former afforded double the feed of the latter.

Mr. ELLISON, of Herkimer, spoke highly of plaster for grass lands. Cattle prefer the plastered grass. Frequent plowing is not beneficial. Plaster in the spring, and manure in the fall.

SOLON ROBINSON recommended salt as a top-dressing for grass lands. It had proved very beneficial on his farm at Westchester county. It sweetens the grass. He had sowed as much as ten bushels per acre.

On Thursday evening, the subject for discussion was—

"THE AGRICULTURE OF NEW YORK.—Is it paying a fair compensation for the capital and labor employed?"

D. PARKER, of Watertown, did not keep a record. If he did, he thought it would show that farming was not very profitable. He had got a living, however, and his farm would sell for $4000 more than when he commenced. He ran in debt for the farm (93 acres.) Had had rather a hard time of it, but it was now all paid for, with good buildings, etc.

J. J. THOMAS mentioned several cases in Cayuga county, where farmers had made large profits. One young man, with $1000, bought a $5000 farm, and in five years had paid all but $1,800 from the profits of the farm. Another had bought a $6,000 farm, and paid $1,000 a year on it from the profits. Several such instances of successful farming were mentioned. Others of equal intelligence might do the same.

A gentleman asked, "What crops those farmers had grown?" Mr. T. replied, "In most cases, mixed husbandry—wheat, barley, oats and peas; in some instances, peas had been substituted for barley. They had also underdrained."

A. L. FISH, of Herkimer, thought the subject hardly debatable. The State of New York had become wealthy, and the principal source of it was agriculture.

SOLON ROBINSON eloquently elaborated the same idea. The majority of merchants in New York were bankrupts at the end of fifteen or twenty years.

Mr. ELLISON, of Herkimer, thought if the merchant had *practiced the same economy* he would

be richer than the farmer. He would be honest, and admit that farmers were better off than the mechanic. Farmers might make more money if they farmed better. His friend Fish had grown rich by the application of scientific principles to the culture and manuring of the soil. Keeps good cows, and makes 650 lbs. of cheese per cow. One year, he (Fish) had made some 700 lbs. It was just as cheap to keep a good cow as a poor one.

E. CORNELL, of Ithaca, gave some very interesting statistics of Tompkins county, showing that the land, buildings, &c., were worth $13,000,000. The crops raised were worth $2,713,011. Allowing half of this sum for labor, seed and taxes, and we have over 10 per cent. interest on the capital. Farmers are getting rich. Better buildings, finer houses, etc. The land is not deteriorating—it is annually becoming more productive.

For the New England Farmer.

HARRIET MARTINEAU ON AMERICAN AGRICULTURE.

In the year 1835, Miss Martineau made a tour of observation in this country, and on her return home published a couple of very interesting volumes, embodying her views upon American society, and commenting with a good deal of sagacity upon *our agriculture*. Upon the subject of the thorough tillage of England, and the slovenly of America—a subject lately much discussed—she makes the following sensible remarks:

"English farmers settling in the United States used to be a joke to their native neighbors. The Englishman began with laughing, or being shocked, at the slovenly methods of cultivation employed by the American settlers; he was next seen to look grave on his own account, and ended by following the American plan.

"The American plows round the stumps of the trees he has felled, and is not very careful to measure the area he plows and the seed he sows. The Englishman clears half the quantity of land—clears it very thoroughly—plows deep, sows thick, raises twice the quantity of grain on half the area of land, and points proudly to his crop. But the American has, meantime, fenced, cleared and sown more land, improved his house and stock, and kept his money in his pocket. The Englishman has paid for the labor bestowed on his beautiful fields more than his fine crop repays him. When he has done thus for a few seasons, till his money has gone, he learns that he has got to a place where it answers to spend land to save labor; the reverse of his experience in England; and he soon becomes as slovenly a farmer as the American, and begins immediately to grow rich."

This is all very natural to expect, as the Englishman and the American are as near alike as two eggs, (as Shakspeare would say,) their different positions in their different countries or the shadow of their institutions only making the apparent dissimilarity. But while Miss Martineau knows the American farmer recognizes the high comparative price of labor in this country, she cannot account for his opposing immigration so strenuously as he does, when the tendency of this is to make labor cheaper. But perhaps this is the result of mistaken political considerations. Respecting the close cultivation of the soil, this is a subject which no theorizing or lecturing will influence, but will come as a necessity with the increase of population and the dearness of land. The American farmer, where land is cheap and rising, always wants more than he can cultivate, as a reserve for speculation. Hence Miss M. observes:

"The pride and delight of Americans is their quantity of land. I do not remember meeting with one to whom it had occurred that they had too much. I saw a gentleman strike his fist on the table in agony at the country's being so *'confoundedly prosperous!'* * * * Land was spoken of as the unfailing resource against overmanufacture; the great wealth of the nation; the grand security of every man in it."

If what she observes in another paragraph is true, (and it undoubtedly is,) we need have no fears that agriculture will run down; in fact, it appears to be a kind of safety-valve to all other vocations.

"The possession of land," she observes, "is the aim of all action, generally speaking, and the cure for all social evils among men in the United States. If a man is disappointed in politics or love, he goes and buys land. If he disgraces himself, he betakes himself to a lot in the West. If the demand for any article in manufacture slackens, the operatives drop into the unsettled lands. If a citizen's neighbors rise above him in the towns, he betakes himself where he can be monarch of all he surveys. An artisan works that he may die on land of his own. He is frugal, that he may enable his son to be a landowner. Farmers' daughters go into factories that they may clear off the mortgage from their fathers' farms; that they may be independent landowners again."

Miss M. speaks favorably of this, and remarks that "it falls out well for the old world in prospect of the time when the new world must be its granary."

Both of the great political parties, she observes, are proud of their lands, but the democratic party were wont to say that the United States were intended to be an agricultural country. "It seems to me they are intended to be everything."

In Massachusetts, and, in fact, in most, if not all the New England States, the authoress supposed agriculture to be on the decline—or in other words supplanted by manufactures, for which she thinks it best fitted; and in this connection she alludes to many farmers dividing their time with other pursuits—fishing and shoemaking, for instance.

Miss Martineau's volumes are written with remarkable vigor and freshness, abounding in a good recognition of general principles, sagacious observations, democratic tendencies and wise prophecies—all covered with her hearty good wishes. But, at present, I will make no further extracts.

D. W. L.

West Medford, July, 1862.

THINNING PEARS.—One great error in the management of dwarf pear trees, is allowing the trees, especially young trees, to bear too much fruit. It is absolutely necessary for the health of the trees and to secure good sized fruit, that the young fruit be thinned *thoroughly* at this season. Don't be afraid of thinning too much.—*Genesee Farmer.*

HELPING TO BUILD NESTS.

One of the best things in *Merry's Museum* for last month is the following article illustrative of the character of one of the best men in our State, Hon. JOHN PRESTON, of New Ipswich. He is a man whose good nature sheds a light upon all who come within his influence. He was the advocate of a bird law in our Legislature, in 1846, and we well recollect the entrance of a bird into the Hall of the House of Representatives at the time he was advocating their cause. The effect was electric. But the law for their protection did not pass. Mr. Preston's milk of human kindness is not confined to the feathered race—it extends, and in an enlarged degree, to the whole human race.

Look upon that grand old elm and see that new bird's nest on one of its overhanging branches. What a beautiful place for a quiet home for the nestlings, and how admirably it is built and securely fastened among the twigs! It belongs to a pair of orioles, or golden robins as they are sometimes called. These birds construct their nests out of bits of twine, cotton, tow, etc., which they pick up with great pains from the surrounding country. On the tree which you see in the picture, a pair of these birds have built their nest for several years, because here they were sure of a kind reception and a helping hand.

I saw that nest built the other day, and learned the secret of their attachment to the place. Being on a hasty visit to the country, I called at the residence of John Preston, Esq., of New Ipswich, N. H., an old friend of Robert Merry. I found him seated in his little office very busy cutting up twine of different lengths. He greeted me very cordially, but kept on with his work, which seemed to be of great importance. When he had prepared quite a handful, he led the way out of the office, and deposited the strings upon the cross-bars on which you see the little bird under the tree. Then he told me they were for the birds to build their nests with, and that every year, (when the sweet notes of the oriole sounded through the branches of the trees, filling the neighborhood with sweetest music,) he had supplied them with materials for building their nest.

We retired a short distance, and very soon down came one of those beautiful birds like a flash of golden light, and commenced selecting material for his nest. I supposed he would take the first piece that came to hand, but like a skilful builder, he took up first one piece, then another, examining them very curiously and apparently measuring the length with his eye, like a practiced carpenter. When one was found that suited his purpose, away he flew to his chosen limb, and having securely fastened it, he returned for another. He was the very personification of industry, and set an example worthy of imitation by many bipeds without feathers.

Ordinarily it would require a week or more of hard work for a pair of these birds to build their nest, as they must usually take long journeys to find proper materials, but having everything provided at hand, they nearly completed the outer walls in a single day.

The following morning my friend provided a quantity of tow from bits of rope, which he picked to pieces for the use of the birds, which they speedily appropriated for a soft lining to the nest. The matter interested me so much that I brought away a good photograph of the tree and surroundings, taken on the spot.

I was greatly pleased in watching them; but what I admired most, and what I am sure you will also think worthy of imitation, was the kindness shown to these little creatures by this noble-hearted man. He could find time from pressing business, to care for the birds that came to cheer his home with their songs. It made me love him better than ever. He has his reward for his kindness in the friendship of the birds, who have learned to know their benefactor, and sing for him their choicest songs.—*Portsmouth Journal.*

For the New England Farmer.

TRIAL OF MOWING MACHINES.

MR. EDITOR:—A trial of mowing machines took place near Berry's tavern, in Danvers, on Thursday, the 26th inst., under the auspices of the Essex Agricultural Society, and superintended by the Committee on Farm Implements. At 10 o'clock, the time set, the still frowning aspect of the lingering storm clouds had deterred many who were anxious to witness the trial, and led the Committee to hesitate whether to adjourn to a finer day, or to proceed. By 11 o'clock, however, quite a large number of persons had collected, and the agents of the different mowers were already on the ground, desiring to show farmers how easily, handsomely and economically their grass could be cut, while they only looked on. The Committee, therefore, concluded to step into the yet reeking grass, and set off the requisite number of one-quarter acre lots, from a field well adapted to the purpose, offered, with his accustomed generosity, by one of the Committee, E. G. Berry, Esq. One or two of the mowers cut the grass from the headlands, where spectators might stand and the mowers turn, and at half-past one the trial commenced.

E. E. Lummus, of North Beverly, entered one two-horse and one one-horse Woods mowers, also one Davis improved. Amos Poor, Jr., of Newburyport, entered one 4 foot bar, (two-horse,) and one 3½ foot bar, (one-horse,) Union, and also one Manny, (one-horse,) owned by Daniel Richards, of Danvers. S. A. Merrill, of Salem, entered one 4½ foot bar, and one 4 foot bar, (each two-horse,) and one 3½ foot bar, (one-horse,) of the Buckeye.

It was arranged that only one mower should operate at a time, so that each person might give his undivided attention to each machine. But want of time at last compelled the Committee to let two move together. The Woods, the Union and the Davis improved were all new machines, light, and yet apparently well put together and strong. The Davis improved did not work until the writer was compelled to leave the field. The Buckeye and the Manny had been often used, and their merits are well understood.

The Committee, five of whom were present, considered their duty on the occasion to be to give all those interested an opportunity to exhibit, and see, and compare the operation of the various

mowers, so that each person should be the better able to judge which of them, on the whole, would be best adapted to his own work. At this time, when the sons of our farmers and so many of the constantly diminishing number of good mowers have thrown aside farming implements for the rifle and the bayonet, these mowing machines are becoming a necessity; and the great question is, Which shall I buy?

The Committee regret that they had not the means of measuring accurately by the dynamometer the draught of the different mowers. That would have settled one important point. They were unanimous that the work was all well done. And every farmer present, who owns only one horse of nearly 1000 pounds weight, might have been satisfied that with one of these machines he can do his own mowing well.

CHAIRMAN OF THE COMMITTEE.

Haverhill, June 27, 1862.

HAYING.

The farmer is now in the midst of the haying season, when he is to cut and secure one of the most important crops of the farm. In consequence of the late rains in this region, farmers did not commence haying as soon as has been customary into ten or twelve days. Much of the month of May was dry, so that the grass crop was retarded in its growth, and since July came in, has been in a condition to be greatly benefited by the warm and frequent rains. The middle of July, therefore, finds us only fairly engaged in the great work.

Farmers, generally, do not now feel that they are obliged to commence cutting their grass much before it is in its best condition. Previous to the days of mowing machines, they began early, though the grass might not be in blossom, lest they should not get through before some of it had gone to seed. With the aid of mowing machines, there is little danger of this result now,—and this is one of the advantages which they confer. With a good machine, as much grass may be cut in two or three hours in the evening, or in the morning, as several hands can take care of for a day following. It will be spread as it is cut, and ready for the sun.

Good farmers differ in opinion as to the best mode of curing hay. The practice many years ago was to expose it two days to an intense sun, the hotter the better. Under this treatment the hay became nearly as brittle as glass, and a large proportion of its nutritious properties were wasted. It would certainly keep well in the barn, for there were not juices enough left to get up a sweat, and produce mould and fermentation. But it was hard and glassy, and in our judgment, much less valuable than if it had been cured more in the shade.

To accomplish this, the grass should be cut and evenly spread, and when thoroughly wilted—not dried—thrown into cocks and covered with caps, where it will lay, safely, from thirty-six hours to three or four days, according to the state of the weather. If the weather is clear and hot, on removing the caps, the top of the cock, say a fourth part of it, will be found well cured, and sufficiently dry to go into the barn, which is evidence that the process of curing goes on rapidly while the hay is in this condition. But it is well to throw the cocks open, admit the sun and air to every part of it for an hour or two, turning it upside down if necessary, and then it will be in excellent condition to go in. If the weather is cloudy and damp, or stormy, it is usually sufficiently cool to prevent heating, for three or four days, and during that time the hay will become so much made as to require but little sun and air afterward.

Grass cured in this way is not brittle, but flexible, is aromatic, has a lively greenish color, and retains most of its nutritious properties. Stock will eat good grass thus cured with avidity, and will produce a good flow of milk, or lay on fat or flesh, without the use of grain. We do not mean to say, however, that it is best always to leave hay out three or four days,—but that it is better to cure it partly in the cock than to expose it two entire days to the sun.

CLOVER HAY.

Clover hay should be cut late in the afternoon, or early in the morning of a clear day. Let it lie without disturbing it until about two o'clock, and then gather it into cocks with a fork, and cover it with caps. It should then be left in this condition for two days, when the cocks should be thrown open for an hour or two, and it will usually be found in fine condition to be housed. Under this process the leaves and blossoms will retain so much of their juices as to adhere to the stem, so that very few of them will be found upon the bottom of the hay cart upon unloading it. The stems will also be juicy, sweet, nutritious, and easy to masticate by the animal using them. Such hay we consider more valuable than any other that we secure, and we hope hereafter to see it take the place of half the fields now devoted to other grasses.

SALT ON HAY.

Many persons practice adding salt to hay as it is stowed away in the bay or upon the scaffold. The practice is a good one when the salt is used moderately—but in such quantities as some apply, we think it must be injurious to both hay and the stock that consumes it. Some farmers have told us that they *use half a bushel* to a ton of hay when they feel obliged to get it in before it is sufficiently cured! Such fodder as this would make, ought to be reported in the price current

as *pickled hay!* It is supposed that it induces scours in stock, and often proves quite injurious to their general health. It is a wasteful practice to get in hay half cured, and depend upon salt to save it. It would be better economy to purchase hay caps, and with their aid secure the hay in perfect condition.

For the New England Farmer.

PROGRESS IN NATURAL HISTORY.

I noticed in a late communication over the signature of "Farmer," some excellent ideas, but many uncandid sneers at students of natural history, who endeavor to benefit others by imparting the information they have gained through careful observation and long experience. While there are numbers of empirics and superficial writers on these subjects, we are not "*ab uno disce(re) omnes.*" If the farmer *will* not, through indolence or disinclination, or *cannot*, from want of time or incapacity, study the works of nature himself, he must be at the mercy of every ignorant pretender who has scarcely learned, as your correspondent says, "to distinguish a crow from a robin, or a hawk from a dove, a grasshopper from a housefly, a butterfly from a mosquito," &c. But if, in the long winter evenings, instead of yawning away the hours from supper till bedtime, or spending them at the village tavern. he would take up a simple course of study, on the subject, for instance, of insects—a branch which is most intimately connected with his pursuits—he would find himself amply repaid. If he were to learn the characteristic distinctions between a beetle and a fly, he would not, as do many of our otherwise intelligent farmers, asseverate, with solemn sincerity, that the "rose bug," towards the end of the summer, sheds its wings, and deserts its former pasture of the leaves and flowers, becomes a hairy, yellow dungfly, and frequents manure heaps for the remainder of the season. If he were assured that the beautiful painted butterfly which he cautions his children not to catch nor injure, was a deadlier magazine of destruction to his kitchen garden than ever were canister, grape or shrapnel to the advancing column, or that the little round red beetles, not larger than a half pea, that he finds "eating up" his grain crops, were doing more in one day to rid him of the real destroyer, the plant-lice, than he, in spite of his size and strength, could accomplish in a week, would he not regard the information as a valuable acquisition, even at the expense of an hour's hard study?

"Farmer" asks, "what help does the farmer, well versed in entomology, derive therefrom on a visitation of the caterpillar, the palmer-worm, the canker-worm, or the army-worm, over his unread neighbor?" If he is truly "well versed" in entomology, he will be able to check, if not prevent their ravages, by attacking them at their weakest points. If he sees, on the twigs of his apple trees, little brown clusters of eggs, in the fall and winter, or if, from the middle of June to the 10th of July, he finds on his fences, and beneath the eaves and clap-boards of his house and barn, oval cocoons, sprinkled with a sulphurous powder, he will pick them off, and crush them under foot; then he can see, the next spring, his apple-trees put out their green leaves, and cover themselves with their milky blossoms, without apprehension, and will have no "visitation," while his uninformed neighbors all around him are complaining of their vanished foliage whose place is poorly supplied by the filthy, whited sepulchres of the "web-worm."

It does not follow, by any means, because a "farmer cannot systematically name birds, quadrupeds. reptiles, and insects, coming under his observation, that he knows nothing about them," but he is apt to jump at conclusions, which are often totally erroneous, and the results of his action in the premises is often productive of irreparable injury, as he afterward experiences. A superficial observation is no less a dangerous thing than a little knowledge. A. sees a bird drilling holes in his trees; he shoots him, of course, and says to himself, "I have done a good job; he was sucking the sap." So pleased is he with the knowledge he has gained, that he continues the practice, and in a year or two, finds his trees dying, in spite of the vigilant warfare he keeps up against their supposed destroyers; and when he cuts them down for firewood, he exposes a wonderful number of holes and burrows in the body of the trunk, but none through the bark, excavated by the indefatigable woodpecker in search of his rightful prey, the borer. Now, even if A. had never opened a book on the subject, nor been informed by any learned D. D., but had merely carried his observations a little farther, and had opened the body of the first bird he had shot, the grubs of the boring beetle, and the absence of sap, would have shown the folly of jumping at a conclusion without more facts to support it. B. would laugh in your face, if you should recommend him to kill all his cattle, because they occasionally break into his cornfield, or kitchen garden, and eat, trample and destroy a part of his crops; but at the same time he will exterminate the crows, when corn has been planted, or the robins, when strawberries and cherries are ripening, because these season their meal of cutworms with a kernel of corn, or he has heard some one say that they sucked eggs and killed young birds; while the others, after bringing up their young brood upon injurious caterpillars, at the rate of fifty to a hundred per diem, think it no harm to take a few cherries from the overloaded boughs, to vary their repast. C.'s entomological lore consists of the apothegm—"insects are injurious to agriculture." Accordingly, he proceeds to burn, slay and destroy indiscriminately friends and foes, the marauding caterpillars, the beetles of the wire worm, the moths and butterflies, together with the dragon flies, the wasps, ichneumons and ground beetles; and that—by illustrious precedent—reminds me of a little story which was related in my hearing by Prof. ———, at a meeting of the Essex Institute, and although I cannot give it the inimitable flavor of his version, I will do my best. A certain minister, who mingled his studies of Divine Revelation with researches into the book of Nature, was settled somewhere "down east," and continuing his investigations as usual, was surprised in his study by a deputation of wiseacres from his congregation, who after a series of hems and haws, opened the subject through their ringleader as follows:—"Mr. ——, the people think you spend a good deal of time in poking round the fields and catching *bugs* and *butterflies*, that would be better employed in your studies, or in going round doing

good, in visiting them, and taking more interest in their welfare." Scarcely giving him time to finish his speech, Mr. ——— burst out abruptly: "Mr. Jones! Do you keep a cat?" The astonished Jones hitched back his chair at least a foot, before he replied, "Certainly." "What do you keep a cat for?" snapped the minister. "Why, to kill the rats." "What do you want to kill the rats for?" (short and sharp.) "Why; because they eat up my property," stammers Jones more amazed than ever, thinking the Rev. Mr. ——— quite insane. "Mr. Jones," says the minister in a lower tone, and looking earnestly into Jones' eyes, "did you ever see—when you were out hoeing your corn—a large, black beetle, more than an inch long, very smooth and shiny, and very smart on his legs?" "O! yes, very often." "And what did you do with him?" "I killed him," innocently replies Jones. "You've killed a cat! You've killed a cat!" shouted the minister, and no other answer would he vouchsafe to the delegation. It is supposed that they deliberated on the matter, however, and thought better of this foolish way of spending time, for they were afterwards known to come to the parsonage to inquire the names and habits of curious animals that they met with, while the minister, at last accounts, was not dismissed, nor requested to resign.

In like manner, I, who am but an humble student in the vast field of natural history, may be able to contribute my mite in the form of facts, &c., about insects, and shall be happy to give our good friend "Farmer," and others, any information in my power, in return for their experience in the same subject. F. G. SANBORN.

Boston, July 7, 1862.

DON'T DRINK MUCH WATER.—A person in good health, and in the moderate pursuit of business, does not feel like drinking water, even in Summer-time, if not very thirsty. In fact great habitual thirst in Summer is the sign of a depraved appetite, resulting from bad habits; or it is a proof of internal fever; and the indulgence of even so simple a thing as drinking cold water largely in Summer-time, especially in the early part of the day, will produce a disordered condition of the system. Most persons have experienced more or less discomfort from drinking largely of cold water. If we drink a great deal, we must perspire a great deal; this perspiration induces a greater evaporation of heat from the surface than some have to spare; the result is a chill, then comes the reaction of fever. Many a person arises from the dinner or tea-table, in June, chilly because too much cold fluids have been taken. Those who drink little or nothing, even of cold water, in Summer, till the afternoon, will be more vigorous, more full of health, and much more free from bodily discomfort, than those who place no restraint on their potations.—*Hall's Journal of Health.*

TEA BRANDS AND THEIR MEANING.—The following will interest housekeepers:—"Hyson" means "before the rains," or "flourishing spring," that is, early in the spring; hence it is often called "Young Hyson." "Hyson skin" is composed of the refuse of other kinds, the native term for which is "tea skins." Refuse of still coarser descriptions containing many stems, is called "tea bones." "Bohea" is the name of the hills in the region where it is collected. "Pekoe" or "Pecco" means "white hairs," the down of tender leaves. "Powchong," "folded plant." "Souchong," "small plant." "Twankay" is the name of a small river in the region where it is bought. "Congo" is from a term signifying "labor," from the care required in its preparation.

SKILL IN MARKETING.

One of the branches of his business which a farmer should well understand, is marketing. The extreme eagerness which some manifest, to get an additional half cent per bushel, is hardly to be recommended, nor are the anxiety and sleepless nights which they endure, while fearing the market may decline instead of rising, compensated for in the small additional amount possibly obtained. As a general rule, farmers may sell whenever they have the article ready and there is an active market; the cost of keeping, the danger of waste, the loss of interest, &c., often overbalance a slow advance. But there is one point toward which they may direct all their energies—this is, to have a *good article*, and to have the reputation of always furnishing such. We have known poultry dealers to give from two to three cents a pound more, at all times, to a farmer who had honestly earned a reputation of having the very best, and always put up in the very best manner—and this poultry would sell when a poorer article would not. It is so with marketing fruit. An apple inspector told us that a considerable portion of the fruit offered him the present autumn, proved defective and unfit for sale, after removing the few fine specimens purposely laid on the top of the barrels to conceal the bruised and scabby fruit below. Those who indulged in such tricks lost their sales, and will be watched another year. On the other hand, those who have cultivated their orchards well, and taken pains to raise the best, and who have carefully picked, assorted, and put up what they had to sell, will soon be sought by dealers, and will receive a higher price than others. As an instance of success of this kind, we copy the following statement from the *Prairie Farmer*—and no one can doubt that the successful man of these two, took more pains in picking carefully and in putting up properly; and as a good manager in one way is usually a good manager in others, there is no doubt that his orchard was in better condition:

"I am acquainted with two men occupying about the same range of land, with farms opposite each other, who happened to carry eighty barrels of apples each to market the same week. One of these men got a certain sum for his crop; the other got just $60 more, or an average of 75 cts. more per barrel. One had sufficient mercantile skill to lead him to assort his crop into grades—put them into clean and uniform barrels, and fix a price upon each class, and in consequence of his knowledge of their worth and skill in assorting, etc., he realized $60 more than his neighbor did, on the same amount and quality of apples, without expense, and with but little trouble; and I believe it is not only in marketing apples, but grain and even stock, that the seller should know the real value of it, before disposing of it."

For the New England Farmer.

THE BIRDS OF NEW ENGLAND---No. 19.

WORM-EATING WARBLERS.

Worm-eating Warbler—Swainson's Warbler—Blue-winged Yellow Warbler—Golden-winged Warbler—Nashville Warbler Orange-crowned Warbler—Tennessee Warbler.

The *Vermivoræ*, or Worm-eating Warblers, constitute a well marked section among our numerous tribe of Warblers. They are surpassed by no other group in the agility they exhibit in procuring their food, and, in some respects, in their habits, considerably resemble the Titmice. Their colors are generally plain, and in their feeble songs we observe nothing particularly noteworthy. As their name indicates, their food chiefly consists of caterpillars, and the larvæ of other insects that infest the trees, and spiders. Though the group is widely distributed over the eastern parts of the United States, none of the species are found to be anywhere very common, and several are extremely rare, and our knowledge of their history is quite imperfect.

The WORM-EATING WARBLER, (*Helmitherus vermivorus*, Bonap.,) though somewhat common in some of the Middle and Southern States, is quite rare in New York and New England. This species winters in Mexico and tropical America, reaching Louisiana about the first of April, and slowly proceeds northward to breed. Audubon mentions having found them more numerous in New Jersey than elsewhere. Its food is said to consist of caterpillars and spiders; of the latter it is said to be extremely fond. Aububon describes the nest as being built externally of dried moss and the green blossoms of hickories and chestnut trees, and neatly lined within with fine fibrous roots. The structure is commonly placed among the twigs of a low bush. The eggs are four or five, cream-colored, with a few reddish dots at the larger end.

The length of this species is five and one-fourth inches; alar extent, eight. Above fine olive, streaked on the head with black; beneath, dull buff, approaching orange on the breast, and waved with dusky lines on the vent.

The SWAINSON'S WARBLER, (*Helmitherus Swainsonii*, Bonap.,) was discovered by Backman in 1832, near Charleston, S. C., and first described by Audubon in the second volume of his *Ornithological Biography*. It is exceedingly rare, and seems to be a southern species. De Kay, however, includes it among the birds of New York, and alludes to its having been seen in Massachusetts by Mr. Samuel Cabot, while Baird thinks it "hardly probable" that it has been seen as far east as this State. Its history remains incomplete. Mr. Backman "invariably found them in swampy, muddy places, usually covered with more or less water;" and observes that he found fragments of coleopterous insects in their gizzards, as well as small worms. Its notes are described as "loud and clear, and more like a whistle than a song," on which account it has been called the *Whistling Warbler*.

Length five inches and a half; extent, eight and a half. Above dull olive green, on some parts tinged with reddish; beneath, and line over the eye, white.

The BLUE-WINGED YELLOW WARBLER, (*Helminthophaga solitaria*, Cab.,) winters in tropical America, but is found in summer throughout the eastern parts of the United States, reaching Pennsylvania in its northward migration early in May. On its first arrival, like many other of our Warblers, it frequents gardens and orchards, gleaning among the blossoms for those destructive insects that help make up its food, and afterwards retires to the more sequestered forests to spend the summer and rear its young. Its nest, which is quite peculiar, Wilson observes, "is fixed in a thick bunch or tussock of long grass, sometimes sheltered by a briar bush. It is built in the form of an inverted cone, or funnel, the bottom thickly bedded with dry beech leaves, the sides formed of the dry bark of strong weeds, lined with fine, dry grass. These materials are not placed in the usual manner, circularly, but shelving downwards on all sides from the top; the mouth being wide, the bottom very narrow, filled with leaves, and the eggs or young occupying the middle. The female lays five eggs, pure white, with a few very faint dots of reddish near the greater end." It seems to be quite rare in this State.

Length four inches and three-fourths; extent, seven. Above, green olive; lower parts yellow; lares black; inner vanes of the outer tail feathers, white; two bars of white across the wings.

The GOLDEN-WINGED WARBLER, (*Helminthophaga chrysoptera*, Cab.,) is said by De Kay to be rare in New York, as it likewise appears to be in New England, though it has been seen as far northward as 50°; it has been seen as far south as Bogota in South America, and known to spend the winter in Mexico. It is regarded as a rare species, and its history still remains very imperfect. Its habits are said to considerably resemble those of the Titmice, but more nearly those of the Worm-eating Warbler described above.

This neat and pretty species measures five inches in length, and seven in extent. Color above, dark bluish grey; crown and wing coverts golden yellow; band through the eye, chin and throat, black; lower parts white; inner webs of the three primary tail feathers white. Female, similar but duller.

The NASHVILLE WARBLER, (*Helminthophaga ruficapilla*, Baird,) seems to be fast becoming a common species in many sections of New England, though formerly regarded as so rare. Wilson, who first described it, in 1811, saw but three individuals; Audubon, in 1832, had seen but three or four, and Nuttall probably had not met with it at the same date, though he observes it had been seen near Salem, in this State. De Kay, some twelve years later, mentions it as "exceedingly rare," and gives us no further information of its history. It has now come to be a common species in collections of the birds of this State. For several years past I have seen scores of them every May, frequenting the orchards and gardens, actively gleaning among the blossoms of the fruit trees, as well as in the thickets and forests; and in 1861, many lingered in the deep woods till into June, and I began to expect them to remain all the summer. It has been found to range throughout eastern North America to Greenland, but I am unable to find any account of its nest, the older writers on American Ornithology merely consigning it to the northern parts of the continent to rear its young, in common with numerous oth-

er species of whose summer homes they were equally ignorant. It probably will be found, however, to exist in the northern Alpine parts of New England during that season, having myself shot a male of this species in Weathersfield, Vt., August 16th, 1860; it was then in the midst of its moult, and instead of manifesting that uneasiness characteristic of these birds during their migrations, it seems like a bird perfectly at home, and I doubt not had spent the summer in that vicinity.

Length four and a half inches; alar extent, seven. Above, yellow olive; head and neck, ash; crown, deep chestnut; beneath, greenish-yellow, brightest on the throat and breast.

The ORANGE-CROWNED WARBLER, (*Helminthophaga celata*, Baird,) was first described by Lay, in 1823, who discovered it while travelling with Major Long's expedition to the Rocky Mountains. Audubon gives us an interesting account of its habits, he having found them breeding in the eastern parts of Maine, and in New Brunswick and Nova Scotia. "Its nest," he observes, "is composed of lichens detached from the trunks of trees, intermixed with short bits of fine grass, and is lined with delicate fibrous roots and a proportionally large quantity of feathers. The eggs, which are from four to six, are of a pale green color, sprinkled with small black spots. The nest is placed not more than three to five feet from the ground, between the smaller forks of some low fir trees. Only one brood is raised in the season, and the birds commence their journey southward from the middle of August to first of September."

It ranges from the Atlantic to the Pacific, and southward to Northern Mexico. "In the summer months," says Audubon, "it manifests a retiring disposition, keeping among the low brushwood that borders the rivers and lakes of the northern districts; while, in the South, however, where it is rather common near the seashore, it is less cautious, and is seen, in considerable numbers in the orange groves around the plantations, or even in the gardens, especially in East Florida."

Length five and a half inches; extent, eight. Above, greenish olive; fulvous spot on the crown; beneath, olive yellow, brighter on the vent.

The TENNESSEE WARBLER, (*Helminthophaga peregrina*, Baird,) is another rare species of Warbler, of whose history, we, at present, know but little. It has been seen in this State, and is also rarely met with in New York. Its habits, as far as known, are similar to those of its congeners, feeding on caterpillars and small insects. Its breeding habits are probably yet unknown. It was first discovered by Wilson, some fifty years since, in the State of Tennessee, and hence its name.

The length of the Tennessee Warbler is about five inches, and it is eight in alar extent. Upper parts yellow olive: throat and breast, pale cream color, fading into white on the lower parts. Within the last year, I have met with several individuals of this species at Springfield.

NASHVILLE WARBLER.—Since the above was written, some days since, it has been my good fortune to discover a nest of this species. The nest was placed on the ground, in the side of a bank, which was overgrown with bushes and coarse plants. It was built of fine roots and grass, nicely lined with hair, covered externally with green moss, and so placed as to be protected above by the dead weeds and grass, though not properly an arched nest. The eggs were four, white, and thickly sprinkled over the greater end with reddish brown specks. The nest was discovered of the 31st of May.

BLACK AND WHITE CREEPER. In No. 18 of this series, it was stated, on the authority of Audubon, (Vol. 1, p. 452,) that this species builds in hollow trees. It also builds in other and various situations, frequently openly on the ground, like many other birds, as I have had the pleasure of observing. J. A. A.

Springfield, June, 1862.

RECEIPTS FOR HARD AND SOFT SOAP.

A correspondent, in the *Germantown Telegraph* offers the following receipt as one to be perfectly relied on:

Take ten pounds of soda ash, and dissolve it in twenty gallons of soft water, with twelve pounds of fresh lime and three-fourths of a pound of rosin, by boiling them all half an hour, stirring the while to keep them from setting or burning; then pour all the contents into a tub to settle, washing your kettle clean. After these contents have settled, take the clear water that comes on the top and put it in the kettle; now hunt up all your fat and skins, till you get about twenty-three pounds—if clear not quite so much—put over the fire to boil till all the fat is eaten up: perhaps it will take two hours, or not nearly so long; then take fine salt to divide, and add salt till the hard soap comes on the top. It will at first look like froth, and the waste will look very dark in the bottom of the kettle. Pour all out in a tub. I forgot to say, fill up your tub with cold water after taking off the first clear lye, ready to boil your soap-froth with the second time; put two good bucketfuls of this clear lye in the kettle, then with an iron ladle take all this soap froth off the top of the tub and put it in with these two buckets of lye-water, to boil again a few minutes, to make your hard soap clear and nice, adding salt till it separates well. Then pour all out in a tub, to remain undisturbed over night. In the morning you will have over thirty pounds of as nice white soap as you will wish, for either washing or toilet use, which will not chap the hands at any time. Again, if you would wish a half barrel of nice white soft soap, fill up this said lime tub again with cold water till it settles, then take the hard soap that sticks to the kettle and the pitcher that you dip out with, and three or four ladlefuls of this lye-water, and let it boil a few minutes, till it looks like soap, then fill up your kettle nearly full of the lye-water, and let it boil a few minutes, then pour it out into a vessel, and you will be much pleased with the result of your labor. This soft soap will be thick and solid, and it is very nice for boiling clothes or washing, as it makes a very nice froth.

In order to have plenty of soap fat, you must begin at the beginning to save all the skins of meat, and all the fat scraps that come from your table, which, in warm weather, should be put in some of this clear lye until you get enough to make some soap. By this course, in an ordinary family, you will always have enough soap without buying.

For the New England Farmer.

RETROSPECTIVE NOTES.

"Notes from the Monomack."—Muck, and Model Farming.—Under the rather inexpressive and uninviting heading above given, in quotation marks, I find a very interesting and highly instructive communication in the *Farmer*, (*Monthly*) of July, which had previously appeared in the weekly issue of May 31st. It consists mainly of well condensed details, as to some of the more important of the opinions and practices of Mr. John Day, of *Boxford*; and contains a sufficiency of these, to prove that Mr. Day is a model farmer,—one who makes use of his head as well as his hands, a sufficiency, also, to form quite a useful addition to the stock of information needed by every farmer who is bent upon being successful and prosperous, as Mr. Day has been a sufficiency, also, to form subjects for consideration, for all who love improvement and progress so much as never to suffer any hints, derivable from the opinions and practices of good managers, to pass from the mind, without being duly pondered and practically applied. I know of one farmer who has already made some such use of several of the items of information given in this article, as to the opinions and modes of management of Mr. Day, having already entered in his *Book of the Farm*, and in that department of it, which he has entitled "Intended Improvements and Projected Experiments"—see page 214 current volume—two or three suggestions, for trial and adoption, in future operations, derived from the article now under notice. Probably others who are in the habit of jotting down, as they occur to them, notes of improvements which they intend to adopt, in their future modes of management and experiments, to be tried to test the value of some hitherto unadopted practice, may have done the same thing as the farmer just referred to, or may yet do so, on giving the article on Mr. Day a second reading.

Among the noteworthy results of Mr. Day's superior good management, the principal one, perhaps, is his improvement of his grass lands, to such an extent that where he at first cut only ten tons of hay per year, he has, for the last twelve years, averaged *one hundred tons* a year. This astonishing increase in the fertility and produce of his grass lands was accomplished by a method so simple as to be within the means of every farmer who has access to muck, though some might succeed much better than others, in imitating Mr. Day's modes of management with this inestimable fertilizer, according as *brains* were used more or less in the preparation, composting and application of it. Some, for example, for want of brains, apply muck to their land *too soon* after it has been dug, exposure to a winter's freezing and to a summer's rains and sun being, for many, or most kinds of muck, absolutely necessary to pulverize and otherwise prepare it for a beneficial inter-mixture with the soil. Some, also, would probably fail of the largest possible success in the application of muck, or muck composts, from failing to apply them at the best time. As no information is given in the article under notice, as to the time, or season of the year, when Mr. D. top-dressed his grass lands, we may here say, that, so far as some experience, of my own, and some acquaintance with the practice of others, may enable me to judge, the best two times in the whole year for applying muck composts to grass are, first, immediately after cutting the first growth, and next, in the fall, say in October, or two or three weeks before the usual time for steady and severe frosts. At the former of these times, I have never applied any more than a *light* dressing, mainly to save the stubble and roots of Timothy from suffering from drought, and to give it a start which it is generally slow to take, applying a *heavier* dressing, well-spread, in the fall.

As Mr. Day's mode of manuring and managing his tillage lands seems just as judicious, and just as worthy of attention, consideration, and imitation, as that which he has adopted for his grass lands, and as there does not seem to be any occasion for any comments, either in the way of modification or supplement, I may now take leave of this very excellent article by saying that whoever has read it only once, has not read it half as often, and perhaps not half as considerately, as it deserves to be; and that whoever is so near to perfection in farming as to be able to find in Mr. Day's views and methods of management nothing worthy of imitation, or nothing to serve as hint or help to some improvement in his own practices, must be a model to his town or neighborhood, and one whose farm I should like to visit, or have "Saggahew" make a report of, in his next communication. All young farmers, and almost all who are not yet "already perfect," if really ambitious of making constant improvement, will find the article under notice one that will richly repay repeated perusals, and a great deal of thinking and self-application.

"Proper Location of Buildings on the Farm."—This, article which may be found on page 304 of July number of this journal, contains hints and thoughts which would be of great value, so far as comfort and convenience are concerned, if they could find their way into the heads of those who may be buying a farm, or putting up buildings on one, which they are to occupy for life. If the considerations here presented should fail to occur to the minds of buyers or builders in such circumstances, the result may be that they and their families may suffer some inconvenience, perhaps daily, for the rest of their lives.

When the "Hints on Buying Farms," see pages 203 and 316 current volume, get printed in pamphlet form, as proposed page 316, this article should be added as a useful appendix.

"Mental Culture."—There are some good thoughts in this article, page 315 of July number; but they are not well adapted for use among common farmers, as, for example, the suggestion that farmers should have a study, or room for themselves to read and study in. We have never seen so good a way of making a farmer and his family intelligent, as lately, in a case in which the father hears his children recite or answer questions from Wilson's Family and School Readers, and other books of Natural Science and History. Try *such* a plan. More Anon.

Wool Exhibition.—There is to be a great wool show under the supervision of the Ohio State Agricultural Society at its annual exhibition to be held at Cleveland, September 15 to 19, 1862. Competition is open to the world. Wool

will be divided into four classes: 1st. Fulling wools. 2d. Delaine wools. 3d. Cassimere wools. 4th. Combing wools. Twenty-five fleeces must be exhibited to entitle exhibitors to a premium. Mr. S. N. Goodale, of Cleveland, will have charge of this department.

SUMMER MANURES.

It has become a common practice among New England farmers to plow sward land and lay it to grass in September, without cultivating a crop upon it; and when the autumnal months are mild and moist, this course is certainly successful, if the land is properly dressed with fine, rich compost. More land would be treated in this way than there is, if the farmer could always command the manure which is indispensable, if satisfactory results are expected.

The winter stock of manure is usually exhausted on the crops planted in the spring, so that the only resource is to that which has accumulated through the summer, and what can be done as an auxiliary help by the specific fertilizers. Some persons have attempted to re-seed sward land by the use of guano, bone-dust, ashes, lime or superphosphates, but we have never known the result favorable under such circumstances. The seeds come sparingly, and when up, do not grow vigorously. But wherever there is a little well-rotted manure, a particle of muck saturated with urine or potash in some form, or a speck of rich, clayey loam, the seeds will find and cling to it tenaciously, and throw out their roots freely, which soon pass through it and down into the firmer soil. This is what they like, and should have, in order to return to us profitable crops.

The effort to obtain the largest amount of this material should never cease—not even during hoeing or the hurrying season of haying. Every available thing should be laid under contribution, and especially all the green stuff that can be collected, such as weeds, coarse grasses, and, in many pastures, brakes, and the young growth of bushes. In addition to these the droppings of the cattle, whether tied up or not, should be covered three or four times a week, or once each day would be better. When a system like this is put into practice, and steadily persisted in, the farmer will often find himself amply supplied with the necessary means of laying down his old fields to grass, and of covering them once more with the most abundant and paying crops.

The truth is, we let our grass lands run too long. We mow them year after year and get a ton of hay per acre, when the land, under a higher state of culture, is capable of yielding *three* tons to the acre! Would it not be cheaper to allow some of it to lie idle, or grow up to wood, than to have so much in hand?

In order to have the summer manure in proper condition for re-seeding, it must be collected into heaps and passed through a slight fermentation, such as we have described in an article in this number of the paper, in reply to the queries of a correspondent about destroying the vitality of the seeds of weeds which find their way into the manure heaps.

It is of vital importance to the farmer, never to relax his efforts in making manure. They should be systematic, not spasmodic, crowding in the material this week in undue proportion, and withholding it entirely the next. Where system is observed, and the various materials are judiciously supplied, the heap will grow in magnificent proportions, and if properly reduced from its long and crude, to a short and saponaceous condition, will amply repay the cost with more than compound interest for all the labor he has expended upon it.

Will the farmer allow us to suggest, once more, the importance to him of attending to the manure heaps *in the summer*, while materials are more abundant than at other seasons, and while the hot weather will rapidly reduce them to their best condition. Let us suggest, also, that muck is the great basis upon which his operations must mainly rest. It is, in reality, "the mother of the meal chest." Without its aid we scarcely know what course to suggest; but with it in abundance, and judiciously used, there is hardly a limit to the productiveness of our good soils.

HAY CAPS.

We sometimes hear farmers say that they cannot afford this or that on account of the cost. Do they always count the cost on both sides? We will give an instance of what seems to be true economy. Jacob P. Buswell, of Auburn, purchased 20 caps three years since. He bought the cloth, 1¼ yards wide, and tore it into squares, doubling up the corners for the strings to be sewed on. During the rainy week of the last of June, he had a half acre of fine clover down. It had one day's sun, and was put into 17 stout heaps. The caps were put on, pegged down at the corners, and after a week's rain of no ordinary kind, the clover came out bright and sweet, and was put into the barn in first rate order. Now every farmer knows that it don't take a week's rain to spoil clover. Mr. Buswell's caps cost him $4. They saved him thrice their cost in that one rain. This is what we call true economy. This year cotton cloth costs more than it did three years since, but even now it will pay to buy hay caps. Such things make the farm labor easier, they relieve its hurried and anxious hours, and enable one to feel tolerably easy in the catching rains.—*N. H. Journal of Agriculture.*

A person of uncultivated mind has no resource but in the society of others.

For the New England Farmer.

NOTES FROM MAINE.

The Spring Droughts.—There was an unusual amount of snow fell during the past winter, but no January thaw worthy of being noted; nor during the winter was there rain to any amount. The snow went off nearly all by the warmth of the sun, aided by March and April winds, instead of March winds and April showers, as usual.

This left enormous drifts of snow in every run, gully and hollow, and frost in the ground, with cold nights and days when there was wind, or it was cloudy. Consequently, the ground was dried slowly, at first, by the cool breezes, which in early spring gave us a cold, wet, backward season, with wet, cloggy soil. But it gradually grew warmer, with scarcely any rain till it became as dry as any one, old or young, has seen in these parts at this time of the year.

The germinating seed suffered much. I examined a piece of corn, June 16, planted May 28, and found some of it up three inches, some just coming, some sprouted one to three inches, dried up and apparently dead, and some not swelled to the sprouting point, looking as bright as when planted. Sprouting and then drying has been a too frequent condition of wheat, corn and other crops. But the drought is now broken. Light rains and fine showers are spoken of in many places.

The Season.—As has already been hinted, the season has been cold, windy and dry. Hardly a day but the wind has blown some part of the twenty-four hours so that a laborer, a traveller or any one, would wish it might cease. Very few hot days yet, and less hot nights. One advantage we had, teams could do full work every day, because the heat and rain did not hinder, and they were improved by every one.

Frosts were to be seen June 9 and 15, sufficient to nip the tender garden vines in many places, and here and there a corn blade; but doing slight damage, because the beans, the squashes, the cucumbers could be replanted in the gardens, while the field crops were little injured except in unfavorable places.

The crops are late, owing to the late spring and then the cold and dry weather following. There is a good breadth sown in all crops, with an increase in wheat. The choppings, that is, where the trees were cut down in the summer of 1861, could all be burned this spring and cleared up in season for wheat. On these new lands it is not so difficult to get a crop on account of the wheat midge, Hessian fly, rust and mildew, as on plowed land. The farther they are from old fields, the surer the crops. The hay crop is materially injured on dry, light land, and so it is on land laid down in 1861, not being sufficiently sodded to shield the young roots. O. W. True.

Near Phillips, Me., July, 1862.

The Frog Trade.—The Auburn (N. Y.) *Advertiser* says that the catching of frogs at Montezuma has become quite a considerable trade. It adds: "For three or four seasons past two men have made the impaling of frogs their business. Every other day they ship from Auburn a barrel of frogs for the New York or Buffalo market. They make very handsome wages. The method of securing these *basso profundos* of the marshes is very similar to spearing for fish. The men paddle off through the marsh in the night with a dark lantern. They approach the haunt of the frog very quietly, and when near enough throw their dart with a certainty acquired by practice, always hitting them back of the head, killing them instantly. The hind quarters are then carefully skinned and cut off, packed in barrels, and sent to their destination. They generally secure two or three hundred in a night, and are paid $6 a hundred.

CLOVER AND PLASTER.

A reader in Michigan wishes a little information respecting clover and plaster, which we will endeavor to give. Clover may be sown either in the autumn with winter grains, or in the spring with summer cereals, or may be sown alone or with timothy or any other of the cultivated grasses. Which is the best of these methods is not very easily ascertained; and the question has caused a good deal of discussion among practical men, and the exhibition of a great variety of experience that at first might appear contradictory. Like other questions, however, in regard to which experience seems to vary, we have no doubt the difference in the result is chargeable to difference of circumstances, such as soil, climate, exposure, amount of snow, which is valuable as winter protection, and perhaps other influences.

When clover is sown alone, from ten to sixteen pounds are used. Heavy land it is believed generally requires more seed than a light soil. It is best not to be sparing of clover seed, for where grown pretty thick the hay is finer and better. When sown with timothy, the usual quantity is from six to twelve pounds. The only way to insure a good crop all over the field, is to prepare the ground thoroughly and give plenty of seed. Spots where clover will not catch, need manure and a little more seed.

The operation of plaster is not well understood either by practical or scientific men. It has been used by some in certain locations without the least apparent benefit, and its use abandoned, while others differently situated find it the most profitable manure that can be used on clover, all leguminous plants, and the grasses. Why this is so no one can tell, though there are many theories. Experiment alone will decide where it is profitable to use plaster and where it is useless. There is great difference of opinion, too, as to the best time of sowing plaster. Some derive no benefit unless it is used in the spring after the leaves are well expanded, and think that its effect is through the leaves alone, while others are not particular on this point, and prefer to sow at the very earliest moment possible in the spring, and in this way obtain the best results. We never saw a better effect from plaster than on a field of clover in Niagara county, heavy soil, that had received a heavy dressing of plaster in the winter. A correspondent complains that using plaster on clover sown with wheat causes a heavy growth of straw, makes the wheat ripen late, and it is very much subject to rust, while without plaster the clover perishes from drought. If any of our readers know of a preventive of this state of things, we would like

to be informed. From two to four bushels of plaster is the quantity usually applied to the acre.

We have referred to the difference existing among scientific men regarding the operation of plaster, and we give the opinions of three of the most celebrated doctors.

Sir Humphrey Davy held the opinion that the influence of gypsum on clover, sainfoin, rye grass, and other plants of this character, is due to their containing naturally a large proportion of sulphate of lime. He examined the ashes of these plants, and found that they afforded considerable quantities of gypsum, which substance, he thought, might probably be intimately combined as a necessary part of their woody fibre. He believed that where gypsum failed to produce a good result, it would be found that the soil naturally contained so much of the salt, that its artificial supply was unnecessary.

Prof. Liebig's opinions are thus stated in the *Cyclopædia of Agriculture:* Prof. L. explains the action of gypsum upon grasses, by a reference to its well known power of converting the volatile carbonate of ammonia into the more fixed sulphate of the same base. When sulphate of lime is mixed with a solution of carbonate of ammonia, all ammoniacal smell soon disappears. By a mutual interchange of elements, carbonate of lime and sulphate of ammonia are formed, and the latter salt, not being volatile at ordinary temperatures, remains without loss in the liquid.

Prof. Liebig further states that "a part only of the carbonate of ammonia, conveyed by rain to the soil, is received by plants; because a certain quantity of it is volatilized with the vapor of water. Only that portion of it can be assimilated which enters deeply into the soil, or which is conveyed directly to the leaves by dew, or is absorbed from the air along with the carbonic acid."

Now it is to the power, possessed by gypsum, of converting the carbonate of ammonia into the sulphate of the same base, and thus preventing its volatilization when it has once come in contact with the soil, that Prof. Liebig partly attributes the action of gypsum as manure. We say *partly*, because he expressly says that "the evident influence of gypsum upon the growth of grasses, the striking fertility and luxuriance of a meadow on which it is strewed, depends, in *some degree*, upon its fixing in the soil the ammonia of the atmosphere, which would otherwise be volatilized with the water which evaporates." And in other parts of his well known work on Agricultural Chemistry he shows in what way plants derive the sulphur, required for the production of their albuminous constituents, either directly or indirectly, from sulphate of lime. Prof. Liebig, then, considers that gypsum acts as a source *per se* of food to plants, but still more as a means of presenting ammonia to them in greater abundance—in other words, that in applying gypsum to a soil, we are in fact manuring with an ammoniacal salt.

M. Boussingault, who advocates the third theory which we have to notice, has taken occasion, in enunciating his views, to criticise with great ability both of the preceding explanations of the action of gypsum.

In reference to Prof. Liebig's theory, M. Boussingault shows that to double the crop of clover, which a dressing of gypsum is well known to do, the whole of the rain falling during the life of the plant must have contained 1-17000th of its weight of carbonate of ammonia; and that even allowing that this proportion of ammonia could exist in rain water, great corrections would require to be made for the quantity of rain which either does not penetrate the soil at all, or is returned to the atmosphere without passing through the plants.

Admitting, however, for the sake of argument, that the effect of gypsum upon clover, lucerne, sainfoin, &c., is really attributable, to its fixing the ammonia of the atmosphere and of rain, M. Boussingault justly asks why it is that it does no good whatever to natural pastures, and still less to root or corn crops. Theoretically it would be expected that a proportionate advantage should be derived by all crops from the ammonia so obtained, and it is a matter of notoriety that ammoniacal salts largely increase the produce of natural grasses, and form an excellent manure for wheat. These facts seem perfectly irreconcilable with the explanation offered by Prof. Liebig for the action of gypsum in agriculture.—*Rural New-Yorker.*

For the New England Farmer.

CULTURE OF THE ONION.

Yesterday I visited the grounds of P. L. Osborn, an industrious laborer of this place, and found him busily engaged, hoeing in his field of half an acre of the potato onion. Never before having particularly noticed the culture of this variety of the onion, I was induced to inquire as to the advantages of its culture. The first and most prominent advantage is, that it is less liable to be injured by the onion maggot, or destroyer, that has for several years nearly annihilated our onion crop. Mr. Osborn's field appeared vigorous and promising; and he said he hoped to obtain from it several hundred bushels. Several of his neighbors are pursuing the same course of culture. When such men thus illustrate their faith by their works there is the best of reason to hope their efforts will be successful. The boys in the *Lane* about *Wilson's Corner*, are not often observed chasing game, in a swamp, where none is to found. If they cannot overcome the maggot in one way, they will get around it in another. They rise early, and work late, and eat the bread of carefulness. They do not wear kid gloves, except on Sundays, and then only when going to Quaker meeting.

P.

South Danvers, July 19, 1862.

HOW DEEP SHOULD DRAINS BE DUG?

This is a question upon which there always has been and perhaps always will be a difference of opinion. The depth required must depend on the kind of soil, for if the soil is a hard one, on top of a hard, gravely one, I do not find that there is much advantage in going far into the hard pan. If, on the other hand, the subsoil is loose and more easily dug, there is an advantage to be derived from going deeper.

My rule is, to guage the drains by their distance apart. Let the depth be one-seventh of their distance asunder, and it will secure a thorough drainage. If the subsoil is hard, and the digging expensive, then do not sink the drains so deep, but place them closer together, but hold on to the above rule.

In many cases, especially where tile are used, it will be more economical to sink the drain one foot deeper, and by so doing save one-seventh of the tile; but where tile can be cheaply procured this is not always the case.

For a farm drain I prefer them about four feet deep, with an opening, formed of flat stone, in the bottom, and this covered with small stone to within twenty inches of the top; the latter are not necessary if those forming the opening are covered with reversed sods.—*Germantown Telegraph.*

EXTRACTS AND REPLIES.

RATS AND MICE.

Will you inform me of a speedy and effective method of getting rid of rats and mice?

They infest our house, which is rather an old one, from attic to cellar, and we have been unable to drive them away, though using a great number of traps, &c., and in fact, trying everything we thought might prove effectual. They cause considerable damage to milk, cream, butter and everything eatable, compelling us to cover up as carefully as possible anything we wish to preserve from destruction.

Now, if you, or any of the subscribers of the *Farmer*, can inform me of any such way, please do so, and oblige A READER AND ADMIRER.

Framingham, July, 1862.

REMARKS.—We were once troubled in the same way, loaded the double-barrelled gun, resolved upon "eternal vigilance," shot *nineteen* in the course of a few weeks, and had no further trouble from rats for several years. But they are great travellers, and in process of time we had them again, and being mostly from home, resorted to traps without success, and then to *strychnine*, which proved a quietus to many a poor rat. Spread it upon bread and butter and place it a short distance from the house, or under some back building, where other animals cannot reach it. By doing this they have never returned to the house to die there in the walls.

MILK-SPREADING TEATS.

Having had some experience in milking cows whose teats spread milk, and having been in all cases able to overcome the difficulty, I am disposed to give you the result. I find it to be, so far as my observation extends, a protrusion of the inside of the teat, and the remedy consists in bringing the hand quite low down so as in some measure to press *back* rather than *out*. I even let my little finger come below the teat, so as to hold it up. With a little practice this becomes quite easy, and effects the cure. E. C. PEASE.

Athol Depot, July 7, 1862.

FARRAR'S LADDER HOOKS.

I bought one of *Farrar's Ladder Hooks*, soon after seeing the illustration which you gave of it in a late number of the *Farmer*, and soon had an opportunity of using it to good advantage.

You know in what great peril my dwelling-house was when the factory burned so near me. It was desirable to get buckets of water at once upon the roof; there were two ladders leaning against the house. I called for my Farrar's Ladder Hook; this I attached securely to the upper rounds of one ladder in a second, by turning a screw, and slid the ladder over the ridgepole. In my distress and anxiety as I dashed the water upon the smoking shingles, I blessed the simple contrivance which served me so timely. Hereafter I shall look upon Farrar's Ladder Hook as one of my safeguards against fire, as it will equip any ladder so as instantly to be thrown upon a roof.

I think I shall patch my roofs to better advantage now that I can get over them more safely.

WM. D. BROWN.

Concord, Mass., June 24, 1862.

For the New England Farmer.

MOWING MACHINES.

MR. EDITOR:—I have noticed several articles on mowing machines in your excellent journal during the last twelve months, one of which was an inquiry about Ketchum's, as to which was the best, the 1860 machine, or the 1861. I have used one of the pattern of 1860, and it gives good satisfaction. It does the work well, and is of light draft. I have a pair of horses that do not weigh more than fifteen or sixteen hundred, and they can draw the machine with ease. It is not so hard for them as ordinary plowing. I can mow an acre per hour, and where the land and grass is suitable to mow with a machine, I can commence at twenty minutes past nine in the morning, on three acres, and put it through in two-forty, and put my horses up before noon with dry coats, if the temperature of the weather is not more than 85° above zero!

The principal difference between the patterns of 1860 and 1861 is in the finger-bar. That of '60 is bolted on tight; that of '61 is connected by a hinge, so that the bar can rise over objects without tipping the driver's seat. But where the land is smooth the hinge is not necessary, and where the land is rocky, the hinge is dangerous. The weight of the bar will prevent the machine from tipping to the left; but where the driving wheel runs over a rock, or the hinge slides into a hollow, there is danger of throwing the driver over to the right, and on to the knives, while it is next to impossible to tip the stiff bar machine over to the right. I should choose the stiff bar. There are several kinds of machines in the market, and all claim to be the best. But I doubt if there is a better machine (taking all things into consideration,) than the Ketchum machine; if there is, it would pay for almost every farmer to buy one; if not, it would pay to buy one of Ketchum's, for it is better to pay ten or twelve dollars for the wear and tear, and interest on the cost of a mowing machine, than to pay twenty or thirty dollars for a man to mow, and board him at a cost of six or eight dollars more. In addition to this, grass mowed with a machine is already spread, while if mowed with a scythe, it would take as much time to spread it as it would to mow it with a machine.

Amherst, N. H., July, 1862. D. N.

LADIES' DEPARTMENT.

OUR RECEIPT TO MAKE CURRANT WINE.

For several years we have made a ten gallon keg of currant wine, which is of as good quality as any we have tasted, and is generally so pronounced by those who have had an opportunity to judge. The mode of manufacture is simple, and can be easily followed by any family having the currants and the disposition to make the wine. For general information as well as in reply to private inquiries, we give the receipt after which we make it, and cordially recommend it.

The currants should be fully ripe when picked; put them into a large tub, in which they may remain a day or two; then crush them with the hands, unless you have a small patent wine-press, in which they should not be pressed too much, or the stems will be bruised and impart a disagreeable taste to the juice. If the hands are used, put the crushed fruit, after the juice has been poured off, in a cloth or sack, and press out the remaining juice. Put the juice back in the tub after cleansing it, where it should remain about three days, until the first stages of fermentation are over, and removing once or twice a day the scum copiously arising to the top. Then put the juice into a vessel—a demijohn, keg or barrel—of a size to suit the quantity to be made, and,

To each quart of juice add
Three pounds of the best sugar,
And water sufficient to make a gallon.

Thus, ten quarts of juice and thirty pounds of sugar will give you ten gallons of wine, and so on in that proportion. Those who do not like very sweet wine can reduce the quantity of sugar to 2½ or 2 pounds per gallon.

The cask must be full, and the bung or stopper left off until fermentation ceases, which will be in twelve or fifteen days. Meanwhile the cask must be filled up daily with water, or what is better, currant juice left over, as fermentation throws out the impure matter. When fermentation ceases, rack the wine off carefully, either from the spiggot or by a syphon, and keep running all the time. Cleanse the cask thoroughly with boiling water, then return the wine, bung up tightly, and let stand for four or five months, when it will be fit to drink, and can be bottled if desired.

All the vessels, casks, &c., should be perfectly sweet, and the whole operation should be done with an eye to cleanliness. In such event, every drop of brandy or other spirituous liquors added will detract from the flavor of the wine, and will not in the least degree increase its keeping qualities. Currant wine made in this way will keep for an age, unless it is—*drank.*—*Germantown Telegraph.*

NICE TEA CAKES.—Sift from a pint and a half to a quart of flour, and mix thoroughly through it two teaspoonfuls of cream of tartar and a little salt, then rub in a clever lump of butter. Have ready one pint of new milk with a teaspoon of soda dissolved in it, and pour this on the floor and work up as soft as you can manage to roll, and cut with cake-cutter; add more flour, if necessary, and bake in a quick oven. They soon bake, and are not so good if the dough is stiff.

DRYING THE COMMON RED CURRANT.

We copy the following method for drying the red currant. It is highly recommended, and is just in time to give it a trial.

The currants should be quite ripe when gathered, with the stems attached, and washed or rinsed effectually and drained off. Then stem them and wash them thoroughly, and to each pound of currants add a quarter of a pound of good Havana sugar; then place them in a preserving kettle over a fire until they come to a *scald heat*, when they are turned out into white earthen dishes, and exposed to the action of the sun until, by evaporation, they become hardened on the upper side. Then they are turned over, and there remain until they become so on the other side, and so alternate until they become a sort of leathery texture, when they are put away in earthen jars or boxes until wanted for use. Care must be taken to keep them from the dews of night and rains during the process of drying; finally, the utmost cleanliness should be observed from first to last.

When used, enough hot water is required to dissolve them or render them to any consistency suitable for tarts, jelly, &c. At the same time, more sugar is required to make them quite palatable, which must of course be governed by taste. Currants in this way have kept well with us for three years, and the presumption is that they will keep for a longer time, if well cared for.

AMERICAN GENTILITY.

In European countries the aim at anything like gentility implies keeping one or more domestics to perform household labors; but in our free States every family aims at gentility, while not one in five keeps a domestic. The aim is not a foolish one, though follies may accompany it—for the average ambition of our people includes a certain amount of refined cultivation; it is only that the process is exhausting. Every woman must have a best parlor, with hair-cloth furniture and a photographic book; she must have a piano, or some cheaper substitute; her little girls must have embroidered skirts and much mathematical knowledge; her husband must have two or even three hot meals every day of his life; and yet her house must be in perfect order early in the afternoon, and she prepared to go out and pay calls, with a black silk dress and card case. In the evening she will go to a concert or a lecture, and then, at the end of all, she will very possibly sit up after midnight with her sewing-machine, doing extra shop-work to pay for little Ella's music-lessons. All this every "capable" New England woman will do, or die. She does it, and dies; and then we are astonished that her vital energy gives out sooner than that of an Irishwoman in a shanty, with no ambition on earth but to supply her young Patricks with adequate potatoes.—*T. W. Higginson.*

FRUIT WAFERS FOR DESSERT.—Take currants, cherries, apricots, or any other fruit; put them into an earthen jar in a kettle of water, and when scalded strain them through a sieve; to every pint of juice add the same weight of finely sifted sugar and the white of a small egg; beat all together

until it becomes quite thick; then put it upon buttered paper in a slow oven; let them remain until they will quit the paper, then turn them, and leave in the oven until quite dry; cut them into shape, and keep them between paper in a box near the fire.

ABOUT RASPBERRIES.

These may be preserved wet, bottled, or made jam or marmalade of, the same as strawberries. Raspberries are very good dried in the sun or in a warm oven. They are very delicious stewed for table or tarts.

RASPBERRY JAM.

Weigh the fruit, and add three-quarters of the weight of sugar; put the former into a preserving pan, boil, and break it; stir constantly, and let it boil very quickly; when the juice has boiled an hour, add the sugar and simmer half an hour. In this way the jam is superior in color and flavor to that which is made by putting the sugar in at first.

RASPBERRY WINE.

Bruise the finest ripe raspberries with the back of a spoon; strain them through a flannel bag into a stone jar; allow one pound of fine powdered loaf sugar to one quart of juice; stir these well together, and cover the jar closely; let it stand three days, stirring the mixture up every day; then pour off the clear liquid, and put two quarts of sherry to each quart of juice, or liquid. Bottle it off, and it will be fit for use in a fortnight. By adding Cognac brandy instead of sherry, the mixture will be raspberry brandy.

RASPBERRY CREAM.

Rub a quart of raspberries, or raspberry jam, through a hair sieve, to take out the seeds, and then mix it well with cream; sweeten with sugar to taste; put into a stone jug, and raise a froth with a chocolate mill; as your froth rises take it off with a spoon, and lay it upon a hair sieve. When you have got as much froth as you want, put what cream remains into a deep china dish or punch bowl, and pour your frothed cream upon it, as high as it will lie on.

American Babies.—I must protest that American babies are an unhappy race. They eat and drink just as they please; they are never punished; they are never banished, snubbed and kept in the background as children are kept with us; and yet they are wretched and uncomfortable. My heart has bled for them as I have heard them squalling by the hour together in agonies of discontent and dyspepsia. Can it be, I wonder, that children are happier when they are made to obey orders and are sent to bed at six o'clock, than when allowed to regulate their own conduct; that bread and milk is more favorable to laughter and soft childish ways than beef-steak and pickles three times a day; that an occasional whipping, even, will conduce to rosy cheeks? It is an idea which I should never dare to broach to an American mother; but I must confess that after my travels on the western continent my opinions have a tendency in that direction. Beef-steaks and pickles certainly produce smart little men and women. Let that be taken for granted. But rosy laughter and winning childish ways are, I fancy, the produce of bread and milk.—*Anthony Trollope.*

THE CATTLE MARKETS FOR JULY.

The following is a summary of the reports for the four weeks ending July 24, 1862:

NUMBER AT MARKET.

	Cattle.	*Sheep and Lambs.*	*Shotes and Pigs.*	*Live Fat Hogs.*
July 3	1382	8125	500	400
" 10	1463	2078	600	400
" 17	1653	4078	640	300
" 24	1783	6160	300	1000
	6281	20,441	2040	2100

PRICES.

	July 3.	*July 10.*	*July 17.*	*July 24.*
Beef cattle, ₩ lb	5¼@7	5¼@6¾	5¼@6¾	5 @6¼
Sheep, clipped, live wt	3 @4½	3 @4½	3 @4½	3 @4½
Swine, stores, wholesale	4 @5	@4	3½@4½	3½@4½
" " retail	4½@5½	4 @5	4½@5½	4½@5½
Dressed hogs	4½@5	4½@5	4½@5	4½@5

Remarks.—There was a decline of ½c ₩ lb. on beef, the second week of July, and the market has shown a downward tendency since that time. Since the first week in the month, no Northern cattle have sold for over 6½c ₩ lb., on dressed weight, except, perhaps, one or two pairs, which were, really, extra, and there are so many corn-fed Western cattle at this market, that an animal must be very fat and well shaped to be ranked as "extra." The Northern cattle at market, July 24th, averaged very light. The early Summer drought in the Northern part of New England and Canada greatly injured the pastures, on which farmers rely for fatting their beef at this season of the year.

The market for lambs has been brisk during the month, notwithstanding the large number reported the first week. There have been but few old sheep at market this month, the great majority being lambs, many of which were small. They have sold in lots, often with a few yearlings, or an old sheep or two with the lambs, at from $2,50 to $3,50,—mostly from $2,75 to $3,25.

The market for milch cows has been dull during the month, and in fact during the season. Pretty fair cows with young calves sell for about $30. First rate cows sell better than ordinary ones.

QUARTERLY SUMMARY.

The total number of cattle, sheep and lambs, shotes and pigs, and live fat hogs, reported for the first and second quarters of the year, ending July 24, with the average number for each week, and the respective numbers of cattle and sheep from the West, or those purchased at Albany, and from the North, or New England, including a few from Canada and Northern New York, is as follows:

	1st Quarter.	*2d Quarter.*	*Total both Quarters.*	*Average per Week.*
Cattle	16,157	16,133	32,290	1242
Sheep	34,961	34,797	69,758	2683
Shotes and Pigs	6,515	23,742	30,257	1164
Live Fat Hogs	8,850	8,650	17,500	673

	No. of Cattle from The West.	*The North.*	*No. of Sheep from The West.*	*The North.*
First Quater	9,118	7039	14,423	20,538
Second Quarter	11,039	5094	2,025	32,772
1st six months	20,157	12,133	16,448	53,310

Cure for Fever and Ague.—Although, like toothache, fever and ague is a disorder that many people make fun over, no one who has ever had the "shakes" and the "chills" is careless concerning the remedy for them. A gentleman who has been out among the troops on the upper Potomac, says that there is a remedy always easily found, which is much more reliable than quinine or cholagogue; and that remedy is a decoction of the common white plantain, formed by steeping the leaves in whiskey, taken before breakfast a dozen mornings in succession. The remedy is at every farm-house door, and as simple as that prescribed to Naaman by the prophet, to whom he was referred by the "little maid."—*Exchange.*